

# UNIVERSITY OF TORONTO

CALENDAR  
1924-1925





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# ADMINISTRATIVE OFFICERS

1923-1924

## THE UNIVERSITY

<i>President</i>	SIR ROBERT ALEXANDER FALCONER, KCMG, D Litt, LLD, DD, Edin, DCL, Oxon
<i>Registrar</i>	JAMES BREBNER, BA, LL D
<i>Bursar</i>	FERDINAND ALBERT MOURÉ, MUS DOc
<i>Librarian</i>	WILLIAM STEWART WALLACE, MA
<i>Director of Extension Work and Publicity</i>	WILLIAM J DUNLOP, BA
<i>Supt of Buildings and Grounds</i>	ARTHUR D'ORR LE PAN, BA, Sc
<i>Warden of Hall House</i>	JOHN BURGON BICKERSTETH, MA
<i>Director of University Health Service</i>	GEORGE DANA PORTER, BA
<i>Medical Adviser for Women Students</i>	MISS EDITH GORDON, BA, MB, DPH
<i>Manager of the University Press</i>	RICHARD J HAMILTON, BA

## THE FACULTY OF ARTS

<i>President</i>	SIR ROBERT ALEXANDER FALCONER, KCMG
<i>Dean</i>	ALFRED TENNYSON DELURY, MA
<i>Secretary</i>	JAMES BREBNER, BA, LL D

## UNIVERSITY COLLEGE

<i>Principal</i>	MAURICE HUTTON, MA, LL D
<i>Registrar</i>	GEORGE OSWALD SMITH, MA
<i>Acting Dean of Women</i>	MRS MOSSIE MAY KIRKWOOD, PH D

## VICTORIA COLLEGE

<i>President</i>	REV RICHARD PINCH BOWLES, MA, DD, LL D
<i>Dean</i>	NORMAN WENTWORTH DEWITT, BA, PH D
<i>Registrar</i>	CHARLES EARL AUGER, BA
<i>Librarian</i>	AUGUSTUS EDWARD LANG, MA
<i>Secretary of Faculty</i>	NORMAN WENTWORTH DEWITT, BA, PH D
<i>Bursar</i>	FRANK LOUIS BARBER, PH D
<i>Dean of Residence</i>	VINCENT MASSEY, MA
<i>Senior Tutor in Residence</i>	GEORGE MALCOLM SMITH, MA
<i>Dean of Women Students</i>	MISS MARGARET ELEANOR THEODORA ADDISON, BA

## TRINITY COLLEGE

<i>Provost</i>	REV CHARLES ALLEN SEAGER, MA, DD, LL D
<i>Dean of the Faculty of Arts</i>	WILLIAM ALEXANDER KIRKWOOD, MA, PH D
<i>Dean of Residence</i>	LLOYD CLIFFORD ARNOTT HODGINS MA
<i>Registrar</i>	JOHN NEVILLE WOODCOCK, MA
<i>Librarian</i>	RUPERT EARLE LORING KITTREDGE, MA
<i>Bursar</i>	SYDNEY H JONES, Esq
<i>Principal of St Hilda's College and Dean of Women Students</i>	MISS MABEL CARTWRIGHT, BA

## ST MICHAEL'S COLLEGE

*Superior  
Registrar  
Bursar*

REV HENRY CARR, B A, LL D  
REV EDMUND JOSEPH MCCORKELL, M A  
REV JOSEPH BASIL WALSH, M A

## FACULTY OF MEDICINE

*President  
Dean*

SIR ROBERT ALEXANDER FALCONER, KCMG  
ALEXANDER PRIMROSE, CB, MB, CM

*Associate Dean*

JOHN JAMES RICKARD MACLEOD, MB, Ch B,  
DPH, DSc, FRS

*Secretary*

EDWARD STANLEY RYERSON, MD, CM

## FACULTY OF APPLIED SCIENCE AND ENGINEERING

*President  
Dean*

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CHARLES HAMILTON MITCHELL, CB, CMG, DSO, CE,  
LLD, D ENG

*Secretary*

STEWART GORDON BENNETT, MC, B A Sc

## FACULTY OF HOUSEHOLD SCIENCE

*President  
Dean  
Secretary*

SIR ROBERT ALEXANDER FALCONER, KCMG

MISS CLARA CYNTHIA BENSON, PH D

## ONTARIO COLLEGE OF EDUCATION

*President  
Dean  
Secretary*

SIR ROBERT ALEXANDER FALCONER, KCMG  
WILLIAM PAKENHAM BA, LL D  
JOHN THOMAS CRAWFORD, BA

## FACULTY OF FORESTRY

*President  
Dean*

SIR ROBERT ALEXANDER FALCONER, KCMG  
CLIFTON DURANT HOWE, MS, PH D

## FACULTY OF MUSIC

*President  
Dean  
Secretary*

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AUGUSTUS STEPHEN VOGT, MUS Doc  
MISS ANNIE WILKIE PATTERSON, BA

## SCHOOL OF GRADUATE STUDIES

*President  
Dean  
Secretary*

SIR ROBERT ALEXANDER FALCONER, KCMG  
JAMES PLAYFAIR McMURRICH, MA, PH D, LL D  
MISS NORA MACKENZIE

## COMMITTEE ON UNIVERSITY EXTENSION

*President  
Chairman  
Secretary*

SIR ROBERT ALEXANDER FALCONER, KCMG  
FRANCIS BARCLAY ALLAN, MA, PH D  
WILLIAM JAMES DUNLOP, BA

## DEPARTMENT OF SOCIAL SERVICE

*President*  
*Director*  
*Dean*

SIR ROBERT ALEXANDER FALCONER, KCMG  
JAMES ALFRED DALE, MA

## DEPARTMENT OF PUBLIC HEALTH NURSING

*President*  
*Director*  
*Secretary*

SIR ROBERT ALEXANDER FALCONER, KCMG  
MISS EDITH KATHLEEN RUSSELL, BA  
MISS HELEN L. WALTON, BA

NOTE.—Communications relating to standing in all Faculties and Departments and to curricula, instruction and examinations in Law, Dentistry, Pharmacy, Agriculture, Gymnastics and Drill, and Veterinary Science are to be addressed to the Registrar of the University, correspondence regarding curricula, instruction and examinations in a particular Faculty is to be sent to the Secretary of that Faculty, correspondence regarding registration, curricula, instruction and examinations in Graduate Courses is to be sent to the Secretary of the School of Graduate Studies, enquiries with reference to College instruction and residence are to be addressed to the Registrar of the College concerned.

Applications for admission to the Faculties of Arts, Medicine, Applied Science and Engineering, and Forestry, are to be sent to the Registrar of the University, applications for admission to the Faculties of Education and Music are to be sent to the Secretary of the Faculty concerned.



1924

## CALENDAR

1924

JANUARY				FEBRUARY				MARCH				APRIL			
Sun		6	13 20 27	Sun		3	10 17 24	Sun		2	9 16 23 30	Sun		6	13 20 27
Mon		7	14 21 28	Mon		4	11 18 25	Mon		3	10 17 24 31	Mon		7	14 21 28
Tues	1	8	15 22 29	Tues		5	12 19 26	Tues		4	11 18 25	Tues	1	8	15 22 29
Wed	2	9	16 23 30	Wed		6	13 20 27	Wed		5	12 19 26	Wed	2	9	16 23 30
Thur	3	10	17 24 31	Thur		7	14 21 28	Thur		6	13 20 27	Thur	3	10	17 24
Fri	4	11	18 25	Fri	1	8	15 22 29	Fri		7	14 21 28	Fri	4	11	18 25
Sat	5	12	19 26	Sat	2	9	16 23	Sat	1	8	15 22 29	Sat	5	12	19 26
MAY				JUNE				JULY				AUGUST			
Sun		4	11 18 25	Sun		1	8 15 22 29	Sun		6	13 20 27	Sun		3	10 17 24 31
Mon		5	12 19 26	Mon		2	9 16 23 30	Mon		7	14 21 28	Mon		4	11 18 25
Tues		6	13 20 27	Tues		3	10 17 24	Tues		1	8 15 22 29	Tues		5	12 19 26
Wed		7	14 21 28	Wed		4	11 18 25	Wed		2	9 16 23 30	Wed		6	13 20 27
Thur	1	8	15 22 29	Thur		5	12 19 26	Thur		3	10 17 21 31	Thur		7	14 21 28
Fri	2	9	16 23 30	Fri		6	13 20 27	Fri		4	11 18 25	Fri	1	8	15 22 29
Sat	3	10	17 24 31	Sat		7	14 21 28	Sat		5	12 19 26	Sat	2	9	16 23 30
SEPTEMBER				OCTOBER				NOVEMBER				DECEMBER			
Sun		7	14 21 28	Sun		5	12 19 26	Sun		2	9 16 23 30	Sun		7	14 21 28
Mon		1	8 15 22 29	Mon		6	13 20 27	Mon		3	10 17 24	Mon		1	8 15 22 29
Tues		2	9 16 23 30	Tues		7	14 21 28	Tues		4	11 18 25	Tues		2	9 16 23 30
Wed		3	10 17 24	Wed		1	8 15 22 29	Wed		5	12 19 26	Wed		3	10 17 24 31
Thur		4	11 18 25	Thur		2	9 16 23 30	Thur		6	13 20 27	Thur		4	11 18 25
Fri		5	12 19 26	Fri		3	10 17 24 31	Fri		7	14 21 28	Fri		5	12 19 26
Sat		6	13 20 27	Sat		4	11 18 25	Sat	1	8	15 22 29	Sat		6	13 20 27

1925

## CALENDAR

1925

JANUARY				FEBRUARY				MARCH				APRIL			
Sun		4	11 18 25	Sun		1	8 15 22	Sun		1	8 15 22 29	Sun		5	12 19 26
Mon		5	12 19 26	Mon		2	9 16 23	Mon		2	9 16 23 30	Mon		6	13 20 27
Tues		6	13 20 27	Tues		3	10 17 24	Tues		3	10 17 24 31	Tues		7	14 21 28
Wed		7	14 21 28	Wed		4	11 18 25	Wed		4	11 18 25	Wed	1	8	15 22 29
Thur	1	8	15 22 29	Thur		5	12 19 26	Thur		5	12 19 26	Thur	2	9	16 23 30
Fri	2	9	16 23 30	Fri		6	13 20 27	Fri		6	13 20 27	Fri	3	10	17 24
Sat	3	10	17 24 31	Sat		7	14 21 28	Sat		7	14 21 28	Sat	4	11	18 25
MAY				JUNE				JULY				AUGUST			
Sun		3	10 17 24 31	Sun		7	14 21 28	Sun		5	12 19 26	Sun		2	9 16 23 30
Mon		4	11 18 25	Mon		1	8 15 22 29	Mon		6	13 20 27	Mon		3	10 17 24 31
Tues		5	12 19 26	Tues		2	9 16 23 30	Tues		7	14 21 28	Tues		4	11 18 25
Wed		6	13 20 27	Wed		3	10 17 24	Wed		1	8 15 22 29	Wed		5	12 19 26
Thur		7	14 21 28	Thur		4	11 18 25	Thur		2	9 16 23 30	Thur		6	13 20 27
Fri	1	8	15 22 29	Fri		5	12 19 26	Fri		3	10 17 24 31	Fri		7	14 21 28
Sat	2	9	16 23 30	Sat		6	13 20 27	Sat		4	11 18 25	Sat	1	8	15 22 29
SEPTEMBER				OCTOBER				NOVEMBER				DECEMBER			
Sun		6	13 20 27	Sun		4	11 18 25	Sun		1	8 15 22 29	Sun		6	13 20 27
Mon		7	14 21 28	Mon		5	12 19 26	Mon		2	9 16 23 30	Mon		7	14 21 28
Tues		1	8 15 22 29	Tues		6	13 20 27	Tues		3	10 17 24	Tues		1	8 15 22 29
Wed		2	9 16 23 30	Wed		7	14 21 28	Wed		4	11 18 25	Wed		2	9 16 23 30
Thur		3	10 17 24	Thur		1	8 15 22 29	Thur		5	12 19 26	Thur		3	10 17 24 31
Fri		4	11 18 25	Fri		2	9 16 23 30	Fri		6	13 20 27	Fri		4	11 18 25
Sat		5	12 19 26	Sat		3	10 17 24 31	Sat		7	14 21 28	Sat		5	12 19 26

# CALENDAR 1924-1925

1924—July 1 Tuesday	Dominion Day University Buildings closed
July 2 Wednesday	Summer Session begins
July 10 Thursday	Meeting of the Finance and Executive Committee of Trinity College
Aug 1 Friday	Last day for receiving applications for the September Examinations in the Faculty of Arts
Aug 4 Monday	Summer Session closes
Aug 15 Friday	Last day for receiving applications for the September Examinations in the Faculty of Medicine
Aug 16 Saturday	Students of the Third Year, Dept 1, in the Faculty of Applied Science and Engineering report at Summer Survey Camp
Aug 23 Saturday	Students of the Third Year, Dept 2, report at Summer Survey Camp
Sept 1 Monday	Last day for receiving applications for admission to the Faculty of Medicine for Session 1924-1925
Sept 1 Monday	Labour Day University Buildings closed
Sept 2 Tuesday	Last day for receiving applications for supplemental examinations in the Faculty of Applied Science and Engineering
Sept 3 Wednesday	Supplemental Examinations in the Faculty of Arts begin
Sept 4 Thursday	Meeting of the Finance and Executive Committee of Trinity College
Sept 9 Tuesday	Supplemental Examinations in the Faculty of Medicine begin
Sept 13 Saturday	Students Fourth Year, Astronomy Option, Faculty of Applied Science and Engineering report at Summer Survey Camp
Sept 19 Friday	Meeting of the Council of the Faculty of Medicine
Sept 24 Wednesday	Supplemental Examinations in the Faculty of Applied Science and Engineering begin
Sept 27 Saturday	Meeting of the Faculty of Arts of Victoria College
Sept 27 Saturday	Enrolment in classes by the various Professors in the Faculty of Arts begins at 9 a m

Sept 29 Monday	Registration and enrolment in the Department of Social Service
Sept 29 Monday	Meeting of the Council of the Faculty of Arts
Sept. 29 Monday	St Michael's Day
Sept 30 Tuesday	Academic Year begins at 9 a m
Sept 30 Tuesday	Last day for the completion of registration in person for the Session 1924-1925 in the Faculty of Arts
Sept 30 Tuesday	Enrolment in classes for the Session 1924-1925, in the Faculty of Arts, to be completed at 5 p m
Oct 1 Wednesday	The opening address by the President to the students of all the Faculties at 3 p m, in Convocation Hall
Oct 1 Wednesday	Lectures begin at 9 a m
Oct 1 Wednesday	Meeting of the Faculty of Arts of Victoria College
Oct 1 Wednesday	Registration in person of the first and second years in the Faculty of Applied Science and Engineering
Oct 2 Thursday	Meeting of the Council of the Ontario College of Education
Oct 2 Thursday	Registration in person of the third and fourth years in the Faculty of Applied Science and Engineering
Oct 3 Friday	Meeting of the Senate of Victoria College
Oct 3 Friday	Meeting of University College Council
Oct 3 Friday	Lectures and laboratory work commence at 9 a m in the Faculty of Applied Science and Engineering
	Meeting of Council of Faculty of Applied Science and Engineering
Oct 3 Friday	Meeting of the Council of the Faculty of Medicine
Oct 4 Saturday	Stated meeting of the Caput to deal with requests as to social functions until November 15
Oct 6 Monday	Meeting of the Council of the Faculty of Arts
Oct 6 Monday	Interyear Track Meet, Faculty of Applied Science and Engineering Faculty Buildings closed after 1 p m
Oct 8 Wednesday	Interfaculty Track Meet University Buildings closed after 1 p m

Oct 9 Thursday	Meeting of the Finance and Executive Committee of Trinity College
Oct 10 Friday	Meeting of Senate
Oct 10 Friday	Charter Day, Victoria College
Oct 29 Wednesday	Meeting of the Faculty of Arts of Victoria College
Oct 31 Friday	Meeting of the Senate of Victoria College
Nov 6 Thursday	Meeting of the Finance and Executive Committee of Trinity College
Nov 6 Thursday	Meeting of the Council of the Ontario College of Education
Nov 7 Friday	Meeting of University College Council
Nov 7 Friday	Meeting of the Council of the Faculty of Applied Science and Engineering
Nov 8-10 Saturday-Monday—Thanksgiving	University Buildings closed
Nov 10 Monday	Meeting of the Council of the Faculty of Arts
Nov 14 Friday	Meeting of Senate
Nov 19 Wednesday	Annual General Business Meeting of the Convocation of Trinity College
Nov 20 Thursday	Annual General Meeting of the Corporation of Trinity College
Nov 26 Wednesday	Meeting of the Faculty of Arts of Victoria College
Nov 28 Friday	Meeting of the Senate of Victoria College
Dec 1 Monday	Last day for receiving applications for supplemental examinations in the Faculty of Applied Science and Engineering
Dec 4 Thursday	Meeting of the Finance and Executive Committee of Trinity College
Dec 4 Thursday	Meeting of the Council of the Ontario College of Education
Dec 5 Friday	Meeting of University College Council
Dec 5 Friday	Meeting of the Council of the Faculty of Medicine
Dec 8 Monday	Meeting of the Council of the Faculty of Arts
Dec 12 Friday	Meeting of Senate
Dec 15-19 Monday-Friday—Term Examinations	
Dec 19 Friday	Last day of Lectures Term ends at 1 p.m.
Dec 22 Monday	Meeting of the Faculty of Arts of Victoria College
Dec 25 Thursday	University Buildings closed

1925—Jan 1 Thursday University Buildings closed  
Jan 2 Friday Meeting of University College Council

Jan 3	Saturday	Mid-session Examinations commence in the Faculty of Applied Science and Engineering
Jan 5	Monday	Meeting of the Council of the Faculty of Arts
Jan 6	Tuesday	Easter Term begins Lectures commence at 9 a.m., except in the Faculty of Applied Science and Engineering
Jan 7	Wednesday	Lectures and laboratory work commence at 9 a.m. in the Faculty of Applied Science and Engineering
Jan 8	Thursday	Meeting of the Finance and Executive Committee of Trinity College
Jan 8	Thursday	Meeting of the Council of the Ontario College of Education
Jan 9	Friday	Meeting of the Council of the Faculty of Applied Science and Engineering
Jan 9	Friday	Meeting of Senate
Jan 15	Thursday	Inauguration Day, Trinity College
Jan 28	Wednesday	Meeting of the Faculty of Arts of Victoria College
Jan 30	Friday	Meeting of the Senate of Victoria College.
Feb 5	Thursday	Meeting of the Finance and Executive Committee of Trinity College
Feb 5	Thursday	Meeting of the Council of the Ontario College of Education
Feb 6	Friday	Meeting of University College Council
Feb 6	Friday	Meeting of the Council of the Faculty of Medicine
Feb 6	Friday	Meeting of the Council of the Faculty of Applied Science and Engineering
Feb 9	Monday	Meeting of the Council of the Faculty of Arts
Feb 13	Friday	Meeting of Senate
Feb 25	Wednesday	Meeting of the Faculty of Arts of Victoria College
Feb 25	Wednesday	Ash Wednesday
Feb 27	Friday	Meeting of the Senate of Victoria College
Mar 2	Monday	Last day for receiving applications for supplemental examinations in Faculty of Applied Science and Engineering
Mar 5	Thursday	Meeting of the Finance and Executive Committee of Trinity College
Mar 5	Thursday	Meeting of the Council of the Ontario College of Education
Mar 6	Friday	Meeting of University College Council

Mar 6 Friday	Meeting of the Council of the Faculty of Applied Science and Engineering
Mar 9 Monday	Meeting of the Council of the Faculty of Arts
Mar 13 Friday	Meeting of Senate
Mar 16 Monday	Last day for receiving applications for Annual Examinations in Arts, Law and Medicine
Mar 31 Tuesday	Last day for submitting LL B theses
Apr 1 Wednesday	Meeting of the Faculty of Arts of Victoria College
Apr 1-15 Wednesday	Examinations in Department of Public Health Nursing
Apr 3 Friday.	Meeting of University College Council
Apr 3 Friday	Meeting of the Senate of Victoria College
Apr 3 Friday	Meeting of the Council of the Faculty of Medicine
Apr 3 Friday	Meeting of the Council of the Faculty of Applied Science and Engineering
Apr 4 Saturday	Second term ends in the Faculty of Applied Science and Engineering Lectures and laboratory work end at 12 noon
Apr 6 Monday	Meeting of the Council of the Faculty of Arts
Apr 7 Tuesday	Annual Examinations begin in the Faculty of Applied Science and Engineering
Apr 9 Thursday	Meeting of the Finance and Executive Committee of Trinity College
Apr 10-13 Friday-Monday—Easter	University Buildings closed
Apr 16 Thursday	Lectures in the Faculty of Forestry end
Apr 17 Friday	Meeting of Senate
Apr 20-24 Monday-Friday—Term	Examinations in the Faculty of Arts
Apr. 21 Tuesday	Examinations in the Faculty of Forestry begin
Apr 24 Friday	Lectures in Arts end
Apr 29 Wednesday	Meeting of the Faculty of Arts of Victoria College
May 1 Friday	Annual Examinations in Arts, Law, Pharmacy, and Agriculture begin
May 1 Friday	Last day for receiving applications for the June Examinations in Arts
May 1 Friday	Last day for receiving applications from candidates for Matriculation Scholarships
May 1 Friday	Meeting of University College Council
May 1 Friday	Meeting of the Senate of Victoria College

May 1 Friday	Meeting of the Council of the Faculty of Applied Science and Engineering
May 4 Monday	Meeting of the Council of the Faculty of Arts
May 7 Thursday	Meeting of the Finance and Executive Committee of Trinity College
May 8 Friday	Meeting of Senate
May 11 Monday	Annual Examinations in Medicine begin
May 25 Monday	University Buildings closed
May 30 Saturday	Medical Session ends
June 1 Monday	Last day for receiving applications for Fellowships
June 3 Wednesday	Meeting of Senate
June 3 Wednesday	Meeting of the Faculty of Arts of Victoria College
June 4 Thursday	Meeting of the Finance and Executive Committee of Trinity College
June 5 Friday	University Commencement
June 8 Monday	Meeting of the Council of the Faculty of Arts
June 16 Tuesday	Senior Matriculation Examination begins
June 19 Friday	Session closes at the Ontario College of Education

# UNIVERSITY OF TORONTO

1923-1924

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*Professor of Mineralogy, (U)*  
 20 Avondale Avenue.

- A MALCOLM WILLIAM WALLACE, B.A , PH D , CHICAGO,  
*Professor of English, (C.)*  
91 Walmer Road.
- A JOSEPH STANLEY WILL, B A., PH D , COLUMBIA,  
*Professor of French, (C )*  
56 Ranleigh Avenue
- A SIR BERTRAM COGHILL ALAN WINDLE, M A , M D., Sc D ,  
DUBLIN, PH D , ROME, LL D , BIRMINGHAM, F R S ,  
*Professor of Anthropology, (M )*  
48 Roselawn Avenue
- A JOHN NEVILLE WOODCOCK, M.A , OXON ,  
*Professor of Latin, (T )*  
220 Glen Road
- S CHARLES HENRY CHALLENGER WRIGHT, B A Sc ,  
*Professor of Architecture,*  
419 Markham Street
- A GEORGE MACKINNON WRONG, M A , LL D , MCGILL,  
*Professor of History, (U )*  
73 Walmer Road
- A ARCHIBALD HOPE YOUNG, M A , D.C.L , KING'S COLLEGE,  
*Professor of German, (T )*  
524 Euclid Avenue

# ASSOCIATE PROFESSORS

- A SINCLAIR MACLARDY ADAMS, M A ,  
*Associate Professor of Greek, (T )*  
Trinity College
- S EDGAR ALFRED ALLOUT, M.Sc., BIRMINGHAM,  
*Associate Professor of Mechanical Engineering,*  
50 St George Street
- M HARRY BERTRAM ANDERSON, M.D , C M ,  
*Associate Professor of Clinical Medicine,*  
184 Bloor Street East
- S EDWARD GOWAN RUSSELL ARDAGH, B A Sc ,  
*Associate Professor of Chemical Engineering,*  
148 Howard Park Avenue
- A SAMUEL BEATTY, PH D.,  
*Associate Professor of Mathematics, (U )*  
On leave of absence
- H MISS CLARA CYNTHIA BENSON, PH.D ,  
*Associate Professor of Physiological Chemistry,*  
157 Bloor Street West

- S MAITLAND CREASE BOSWELL, B A.Sc, M A., HARVARD, PH.D.,  
*Associate Professor of Organic Chemistry in Chemical Engineering,*  
 1 Walsingham Apartments, 321 Jarvis St
- A EDWARD ALEXANDER BOTT, B A ,  
*Associate Professor of Psychology, and Director of the Psychological Laboratory, (U )*  
 57 Sussex Avenue
- A JAMES WINFRED BRIDGES, B A , MCGILL, A.M, PH D, HARVARD,  
*Associate Professor of Psychology (U )*  
 Wellsboro Apts, 412 Jarvis Street.
- M ALAN BROWN, M B ,  
*Associate Professor of Medicine in Charge of Pediatrics,*  
 423 Avenue Road.
- A WALTER THEODORE BROWN, M A., PH D, HARVARD,  
*Associate Professor of Ethics, (V.)*  
 398 Eglinton Avenue West.
- A JAMES TRESAWNA BURT-GERRANS, PHM B, M A ,  
*Associate Professor of Electro-Chemistry, (U )*  
 46 Dewson Street
- A ELI FRANKLIN BURTON, B.A, CANTAB., PH D.,  
*Associate Professor of Physics, (U )*  
 Weston
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*Associate Professor of Clinical Medicine,*  
 26 Gerrard Street East.
- A CHARLES NORRIS COCHRANE, B A , M A , OXON ,  
*Associate Professor of Ancient History, (C )*  
 87 Walmsley Boulevard
- S JAMES ROY COCKBURN, M C , B.A.Sc.,  
*Associate Professor of Descriptive Geometry,*  
 100 Walmer Road.
- E FREDERICK ETHBERT COOMES, M.A ,  
*Associate Professor of Methods in Elementary Education,*  
 158 Delaware Avenue.
- E GEORGE AUGUSTUS CORNISH, B A ,  
*Associate Professor of Methods in Science,*  
 38 St Clair Avenue East.
- E JOHN THOMAS CRAWFORD, B A ,  
*Associate Professor of Methods in Mathematics,*  
 168 Walmer Road

- A ERNEST ABELL DALE, M A, OXON,  
*Associate Professor of Latin, (C)*  
576 Huron Street.
- A HERBERT JOHN DAVIS, M A, OXON.,  
*Associate Professor of English, (C)*  
78 Oakwood Avenue
- A VICTOR DE BEAUMONT, A.M, COLUMBIA,  
*Associate Professor of the French Language and Literature, (V)*  
Cotswold Court, 164 Cumberland Street
- A SAINT-ELME DE CHAMP, B ès L, LYONS, O I P,  
*Associate Professor of French, (C)*  
504 Brunswick Avenue
- M ROBERT DAVIES DEFRIES, M.D, D P.H.,  
*Associate Professor of Hygiene and Associate Director of the Connaught Antitoxin Laboratories,*  
135 Collier Street
- F THEODORE WOOLSEY DWIGHT, B.Sc F, M.F, YALE,  
*Associate Professor of Forestry,*  
12 Lytton Boulevard
- A BARKER FAIRLEY, M A, LEEDS, PH D, JENA,  
*Associate Professor of German, (C)*  
22 Kendal Avenue
- R JOHN BRIGHT FERGUSON, B A,  
*Associate Professor of Chemistry,*  
147 Delaware Avenue
- E WILLIAM CHALMERS FERGUSON, B A,  
*Associate Professor of Methods in Modern Languages,*  
42 Wychwood Park
- A RALPH FLENLEY, M A, LIVERPOOL, B LITT, OXON.,  
*Associate Professor of History, (U)*  
68 Pricefield Road.
- M JOHN TAYLOR FOTHERINGHAM, C.M G, B.A., M.B, M D, C M,  
LL.D., QUEEN'S, TOR,  
*Associate Professor of Medicine and Clinical Medicine,*  
20 Wellesley Street
- M WILLIAM GOLDIE, M B,  
*Associate Professor of Clinical Medicine,*  
86 College Street.
- A DOUGLAS EWART HAMILTON, M A, D PAED,  
*Associate Professor of Greek, (C)*  
528 Palmerston Boulevard
- A LLOYD CLIFFORD ARNOTT HODGINS, M A, TOR., HARVARD,  
*Associate Professor of English, (T)*  
Trinity College



- A ARCHIBALD GOWANLOCK HUNTSMAN, B.A., M.B.,  
*Associate Professor of Marine Biology, (U.)*  
 217 Indian Road
- A WILLIAM JACKMAN, M.A.,  
*Associate Professor of Rural Economics, (U.)*  
 14 Roslin Avenue.
- A GILBERT EDWARD JACKSON, B.A., CANTAB.,  
*Associate Professor of Political Economy, (U.)*  
 795 College Street.
- A FRANÇOIS CHARLES ARCHILE JEANNERET, B.A.,  
*Associate Professor of French, (C)*  
 70 St Albans Street
- E GEORGE MALLORY JONES, B.A.,  
*Associate Professor of Methods in English and History,*  
 164 Walmer Road.
- A REV GEORGE FREDERICK KINGSTON, M.A., B.D., KINGS, PH.D.,  
*Associate Professor of Ethics (T)*  
 303 Crawford Street.
- A ROBERT STRACHAN KNOX, M.A., ABERDEEN, B.A., OXON.,  
*Associate Professor of English, (C)*  
 576 Huron Street
- S ALBERT THOMAS LAING, B.A.Sc.,  
*Associate Professor of Highway Engineering,*  
 146 Balmoral Avenue
- H MISS ANNIE LEWISA LAIRD, M.S., DREXEL,  
*Associate Professor of Household Science,*  
 157 Bloor Street West
- S THOMAS RICHARDSON LOUDON, B.A.Sc.,  
*Associate Professor of Applied Mechanics,*  
 189 Sheldrake Boulevard
- S ARTHUR WELLESLEY MCCONNELL, B.A.Sc.,  
*Associate Professor of Architecture,*  
 Department of Architecture
- A REV EDMUND JOSEPH MCCORKELL, B.A., M.A., CATH. UNIV.  
 OF AMERICA,  
*Associate Professor of English, (M)*  
 St. Michael's College
- M KENNEDY CRAWFORD McILWRAITH, M.B.,  
*Associate Professor of Obstetrics,*  
 30 Prince Arthur Avenue
- M PATRICK WALTER HUGHES McKEOWN, C.B.E., B.A., M.B.,  
*Associate Professor of Clinical Surgery,*  
 Corner Wellesley Street and Wellesley Place

- A ALEXANDER MACLEAN, B A ,  
*Associate Professor of Geology, (U.)*  
 22 Havelock Street
- M FREDERICK WILLIAM MARLOW, M.D , C M , F.R.C.S.,  
*Associate Professor of Gynaecology,*  
 417 Bloor Street West
- F WILLIS NORMAN MILLAR, B.Sc , PENN , M.F., YALE,  
*Associate Professor of Forestry,*  
 R R No 2, Oakville
- A MARCEL MORAUD, L ès L , PARIS, AGRÉGÉ DE L'UNIVERSITÉ,  
*Associate Professor of French, (C )*  
 On leave of absence
- A REV. WILLIAM HUDSON MURRAY, B A ,  
*Associate Professor of French, (M )*  
 St Michael's College
- M JAMES MONTROSE DUNCAN OLMSTED, M A , OXON , PH.D ,  
 [HARVARD,  
*Associate Professor of Physiology,*  
 East House, University of Toronto
- A ERIC TREVOR OWEN, M A ,  
*Associate Professor of Greek, (C )*  
 49 Alcina Avenue
- A ARTHUR LEONARD PARSONS, B.A., NEW YORK,  
*Associate Professor of Mineralogy, (U )*  
 72 Isabella Street
- A WILLIAM ARTHUR POTTER, M A , B D ,  
*Associate Professor of Oriental Languages and Literature, (V )*  
 244 Sheldrake Boulevard
- A THOMAS RUTHERFORD ROBINSON, PH D ,  
*Associate Professor of Philosophy, (U )*  
 9 Barton Avenue
- M GILBERT ROYCE, B A , M B ,  
*Associate Professor of Oto-Laryngology,*  
 100 College Street
- A JOHN SATTERLY, M A , CANTAB, D.Sc, LOND ,  
*Associate Professor of Physics, (U )*  
 269 Davenport Road
- A MISS LAILA CORDELLA SCOTT, M A ,  
*Associate Professor in German (T )*  
 13 Admiral Road
- A GEORGE MALCOLM SMITH, M.C , B.A., M A , OXON ,  
*Associate Professor of History, (U )*  
 North House, Victoria College

- A GEORGE OSWALD SMITH, M A , OXON ,  
*Associate Professor of Latin, (C)*  
 25 Rathnally Avenue
- M HORACE BRADBURY SPEAKMAN, M SC , MANCHESTER,  
*Associate Professor of Zymology and Director of*  
*Research in Zymology,*  
 61 Walmsley Boulevard
- M WILLIAM BROWN THISTLE, M D ,  
*Associate Professor of Clinical Medicine,*  
 124 Bloor Street West
- A ROBERT BOYD THOMSON, B A ,  
*Associate Professor of Phanerogamic Botany, (U.)*  
 586 Spadina Avenue
- S WILLIAM MANTON TREADGOLD, B A.,  
*Associate Professor of Surveying,*  
 13 Woodlawn Avenue East.
- A EDMUND MURTON WALKER, B A , M.B.,  
*Associate Professor of Biology, (U)*  
 67 Alcma Avenue
- A REV. JOSEPH BASIL WALSH, M A , CATH. UNIV OF AMERICA,  
*Associate Professor of Latin, (M)*  
 St Michael's College
- M HARDOLPH WASTENEYS, PH D , COLUMBIA,  
*Associate Professor of Biochemistry,*  
 20 Howland Avenue
- M JAMES CRAWFORD WATT, M A , M D ,  
*Associate Professor of Anatomy,*  
 20 Hawthorne Avenue
- A REV EMIL JEROME WELTY, B A , WESTERN,  
*Associate Professor of German, (M)*  
 St Michael's College
- F JAMES HERBERT WHITE, M A , B SC F , PH D ,  
*Associate Professor of Forestry,*  
 75 Browning Avenue.
- S CLARENCE RICHARD YOUNG, B A SC , C E ,  
*Associate Professor of Structural Engineering,*  
 98 Hilton Avenue

## ASSISTANT PROFESSORS

- A LOUIS ALLEN, PH D , CHICAGO,  
*Assistant Professor of French, (C)*  
 61 Madison Avenue
- S ERNEST WALDEMAR BANTING, B A SC ,  
*Assistant Professor of Surveying,*  
 330 St George Street.

- A ALEXANDER GRANT BROWN, B.A., M.A., OXON,  
*Assistant Professor of Ancient History, (C)*  
 596 Huron Street
- A JUAN CANO, A.B., TOLEDO, A.M., COLUMBIA,  
*Assistant Professor of Italian and Spanish, (U.)*  
 16 Grosvenor Street
- E JOHN OLIVER CARLISLE, M.A.,  
*Assistant Professor of Methods in Classics,*  
 333 Durie Avenue
- M FREDERICK ARNOLD CLARKSON, M.B.,  
*Assistant Professor of Clinical Medicine,*  
 421 Bloor Street West
- A WILLIAM HALL CLAWSON, B.A., NEW BRUNSWICK, M.A., PH.D.,  
 HARVARD,  
*Assistant Professor of English, (C)*  
 96 Oakwood Avenue
- M FREDERICK ADAM CLELAND, B.A., M.B.,  
*Assistant Professor of Obstetrics and Gynecology,*  
 131 Bloor Street West.
- A WILBERT AMIE CLEMENS, M.A., PH.D., CORNELL,  
 R *Assistant Professor of Lymnobiology, (U)*  
 215 Davenport Road
- A ALAN FREETH COVENTRY, B.A., OXON,  
*Assistant Professor of Vertebrate Embryology, (U)*  
 Hart House, University of Toronto
- S SAMUEL RUTHERFORD CRERAR, B.A. SC.,  
*Assistant Professor of Surveying,*  
 122 Grenadier Road
- A DAVID DUFF, M.A., B.D., EDIN.,  
*Assistant Professor of Latin, (C)*  
 85 Woodlawn Avenue West
- S FREDERICK CHARLES DYER, B.A. SC.,  
*Assistant Professor of Mining Engineering,*  
 233 Ashworth Avenue
- A JOHN RICHARDSON DYMOND, M.A.,  
*Assistant Professor of Systematic Zoology, (U)*  
 205 Cottingham Street
- S OWEN WILLIAM ELLIS, M. SC., BIRMINGHAM,  
*Assistant Professor of Metallurgical Engineering,*  
 539 Church Street
- M DONALD THOMAS FRASER, M.C., B.A., M.B., D.P.H.,  
*Assistant Professor of Hygiene and Preventive Medicine,*

- A WILLIAM STANLEY FUNNELL, M A.,  
*Assistant Professor of Chemistry, (U)*  
 348 Davenport Road
- M WILLIAM EDWARD GALLIE, M D, F R C S,  
*Assistant Professor of Clinical Surgery,*  
 143 College Street
- A LACHLAN GILCHRIST, M A., PH D, CHICAGO,  
*Assistant Professor of Physics, (U)*  
 North House, University of Toronto
- A EMILIO GOGGIO, A B, HARVARD, M A, TOR, PH D, HARVARD,  
*Assistant Professor of Italian and Spanish, (U)*  
 341 Roshampton Avenue.
- A MISS CORNELIA HARCUM, B A, GOUCHER, PH D, JOHNS  
 HOPKINS,  
*Assistant Professor of the History of Industrial Art,*  
 (U)  
 82 Charles Street East
- A THURE HEDMAN, PH B, CHICAGO,  
*Assistant Professor of German, (C)*  
 Old Forest Hill Road
- M GOLDWIN WILLIAM HOWLAND, B A, M B,  
*Assistant Professor of Medicine,*  
 147 Bloor Street West
- A WILLIAM ANDREW IRWIN, M A, D B, CHICAGO,  
*Assistant Professor of Semetics, (C)*  
 Wanless Crescent
- M WILLIAM WARNER JONES, B A, M B, F R C S,  
*Assistant Professor of Clinical Surgery,*  
 41 Avenue Road
- A WILLIAM PAUL MCCLURE KENNEDY, M A, DUBLIN, OXON,  
 LITT D, DUBLIN,  
*Assistant Professor of History, (U)*  
 110 Quebec Avenue
- S JAMES THOMAS KING, B A SC,  
*Assistant Professor of Mining Engineering,*  
 126 Manor Road
- M ERIC AMBROSE LINELL, M B, CH B, M D, MANCHESTER,  
*Assistant Professor of Anatomy,*  
 74 St George Street
- M WILLIAM HERBERT LOWRY, M D, C M,  
*Assistant Professor of Ophthalmology,*  
 100 College Street

- A JOHN WOOD MACARTHUR, A B, OBERLIN, M A, WABASH, PH.D.,  
CHICAGO,  
*Assistant Professor of Genetics, (U)*  
319 Roehampton Avenue
- A HERBERT SUTHERLAND MCKELLAR, B.A.,  
*Assistant Professor of French, (C)*  
111 Sherwood Avenue
- M DUNCAN NEIL MACLENNAN, M.D., C M,  
*Assistant Professor of Ophthalmology,*  
126 Blooi Street West
- E WALTER ERNEST MACPHERSON, B.A, LL B, QUEEN'S,  
*Assistant Professor of Education,*  
172 Walmer Road
- A HENRY ALLEN MCTAGGART, M A, B.A, CANTAB,  
*Assistant Professor of Physics, (U)*  
1490 Yonge Street
- S HENRY HARRISON MADILL, B A Sc,  
*Assistant Professor of Mechanical Engineering,*  
68 Heathdale Road
- M HUGH BETHUNE MAITLAND, M D,  
*Assistant Professor of Pathology and Bacteriology,*  
54 Simpson Avenue
- A WILLIAM HOWARD MARTIN, PH D,  
*Assistant Professor of Chemistry, (U)*  
113 Grenadier Road
- E MISS LAURA LAVINIA OCKLEY, B A,  
*Assistant Professor of Household Science,*  
50 Rosemount Avenue
- M JOHN ALLAN OILLE, M D,  
*Assistant Professor of Medicine,*  
69 South Drive
- S JOHN HAMILTON PARKIN, B A.Sc, M E.,  
*Assistant Professor of Design,*  
10 Columbine Avenue.
- A GORDON CUMMINGS PATTERSON, M C, M A,  
*Assistant Professor of Italian and Spanish, (U)*  
Apt C3, 97 Avenue Road
- M ALFRED ERNEST PERFECT, M B,  
*Assistant Professor of Clinical Surgery,*  
201 Annette Street
- A IRVINE RUDSDALE FOUNDER, M.A.,  
*Assistant Professor of Mathematics, (U)*  
19 Glen Gordon Road.

- A LINNAEUS JOSYLN ROGERS, B A Sc , M A ,  
*Assistant Professor of Chemistry, (U.)*  
 29 Rosemount Avenue.
- R HAROLD BOYD SIFTON, PH.D ,  
*Assistant Professor of Research in Botany,*  
 10 Rathnally Avenue.
- M DAVID KING SMITH, M B ,  
*Assistant Professor of Medicine,*  
 22 Wellesley Street
- S WILLIAM JAMES SMITHER, B A.Sc ,  
*Assistant Professor of Structural Engineering,*  
 17 Wellesley Street.
- H MISS LOIS KATHARINE STEWART, B S , KANSAS, M.S ,  
 WISCONSIN,  
*Assistant Professor of Household Science,*  
 73 Grosvenor Street.
- A JOHN LIGHTON SYNGE, M.A , DUBLIN,  
*Assistant Professor of Mathematics, (U )*  
 266 Glenlake Avenue
- M NORMAN BURKE TAYLOR, M B ,  
*Assistant Professor of Physiology,*  
 84 Gormley Avenue
- S ROSS TAYLOR, B A Sc ,  
*Assistant Professor of Mechanical Engineering,*  
 85 Walmsley Boulevard
- A JOSEPH ELLIS THOMSON, B A Sc ,  
*Assistant Professor of Mineralogy, (U.)*  
 20 Chestnut Park Road.
- M ROBERT WATSON WESLEY, M B ,  
*Assistant Professor of Obstetrics and Gynaecology,*  
 2 Spadina Road
- A HUMPHREY HUME WRONG, B A , TOR , OXON , B LITT , OXON ,  
*Assistant Professor of History, (U )*  
 16 Willcocks Street
- S ALBERT RUSSELL ZIMMER, B A Sc ,  
*Assistant Professor of Electrical Engineering,*  
 80 Pine Crest Road

LECTURERS, ASSOCIATES AND DEMONSTRATORS IN  
 MEDICINE

- A MISS MARGARET ELEANOR THEODORA ADDISON, B A ,  
*Lecturer in German, (V.)*

Annesley Hall.

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*Lecturer in French, (M)*  
 St Joseph's College.
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*Demonstrator in Physiology,*  
 Knox College
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*Lecturer in French, (C.)*  
 324 St. George Street
- M ROBERT GARDINER ARMOUR, B.A , M B ,  
*Senior Demonstrator in Medicine,*  
 96 College Street
- M HAROLD GROVER ARMSTRONG, M B ,  
*Demonstrator in Histology and in Anatomy,*  
 627A Vaughan Road
- S ERIC ROSS ARTHUR, B A R C H , L I V E R P O O L ,  
*Lecturer in Architecture,*  
 53 Farnham Avenue
- A M. M. ATHANASIA M A , D E P A U L ,  
*Lecturer in English, (M.)*  
 Loretto Abbey College
- M FREDERICK ALLEN AYLESWORTH, M D , C M , Q U E E N ' S ,  
*Senior Demonstrator in Ophthalmology,*  
 112 College Street.
- A WILLIAM HAROLD TREVORROW BAILLIE, M A , M B ,  
*Lecturer in Mammalian Anatomy, (U)*  
 53 Boon Avenue
- M HAROLD DEWITT BALL, M B ,  
*Demonstrator in Histology,*  
 178 Sherbourne Street
- A MISS KATHARINE MAY BANHAM, B S C , M A N C H E S T E R , M A ,  
*Lecturer in Psychology, (U)*  
 Apt 62 Elmescliffe Apartments, Sherbourne Street
- M GORDON BATES, M B ,  
*Junior Demonstrator in Medicine,*  
 167 Bay Street
- S STEWART GORDON BENNETT, M.C , B A S C . ,  
*Lecturer in Commercial Engineering,*  
 121 Spadina Road
- R CHARLES HERBERT BEST, M A ,  
*Research Associate in Medical Research, (Banting and Best),*  
 142 St George Street.



- M GEORGE MAITLAND BIGGS, M B ,  
*Associate in Oto-Laryngology,*  
 341 Bloor Street West
- A LAURENCE ADOLPHUS BISSON, M A , OXON ,  
*Lecturer in French ( T )*  
 Trinity College
- A VINCENT WHEELER BLADEN, B A., OXON ,  
*Lecturer in Political Economy, ( U. )*  
 Hart House, University of Toronto
- M DAVID HARVEY BODDINGTON, M B ,  
*Demonstrator in Pathological Chemistry,*  
 333 Bloor Street West.
- M LLOYD JUDSON BONHAM, B A.Sc.,  
*Demonstrator in Pharmacology,*  
 46 Gloucester Street
- M EDMUND BOYD, B A , M B ,  
*Associate in Oto-Laryngology,*  
 36 Prince Arthur Avenue
- M MISS GLADYS LILLIAN BOYD, M B ,  
*Junior Demonstrator in Pediatrics,*  
 398 Bloor Street West
- M GEORGE FLORIAN BOYER, M D ,  
*Senior Demonstrator in Medicine and Clinical Medicine,*  
 143 College Street
- E GEORGE NEVILLE BRAMFITT, B A.,  
*Lecturer in Music,*  
 35 Munro Park Avenue.
- A JOHN BARTLET BREBNER, B A , OXON ,  
*Lecturer in History, ( U )*  
 67 Howland Avenue
- M ERNEST ALFRED BROUGHTON, M.B , M R C P , LOND ,  
*Junior Demonstrator in Medicine,*  
 206 Bloor Street West.
- SS REV PETER BRYCE,  
*Lecturer in Social Service,*  
 358 Wolverleigh Boulevard.
- M FREDERICK MATHEW RAYMOND BULMER, M B ,  
*Demonstrator in Pathological Chemistry,*  
 592 Ossington Avenue
- M HOWARD BURNHAM, M B ,  
*Junior Demonstrator in Oto-Laryngology,*  
 102 College Street.

- M JOHN CAMPBELL CALHOUN, M B ,  
*Senior Demonstrator in Oto-Laryngology,*  
 155 Bloor Street East
- M MALCOLM HECTORSON VALENTINE CAMERON, M B ,  
*Demonstrator in Clinical Surgery,*  
 11 Prince Arthur Avenue
- M ANGUS ALEXANDER CAMPBELL, M B ,  
*Senior Demonstrator in Oto-Laryngology,*  
 86 Bloor Street West
- M WALTER RUGGLES CAMPBELL, M A , M D ,  
*Senior Demonstrator in Medicine,*  
 69 Madison Avenue
- M ALAN WOODBURN CANFIELD, M D , C M ,  
*Associate in Pediatrics,*  
 462 Avenue Road
- A GEORGE STRACHAN CARTWRIGHT, C B , C M G ,  
*Special Lecturer in Military Studies, ( U )*  
 397 Russell Hill Road
- A MISS MABEL CARTWRIGHT, B A ,  
*Lecturer in English, ( T )*  
 St Hilda's College
- M WILLIAM HERBERT CARVETH, M B ,  
*Junior Demonstrator in Anaesthesia,*  
 178 Huron Street
- M HARRY ARTHUR CATES, M B.,  
*Demonstrator in Anatomy,*  
 Weston
- M ALFRED HANS WARING CAULFIELD, M B ,  
 R *Senior Demonstrator in Medicine and Research As-*  
*sociate in Connaught Antitoxin Laboratories,*  
 13 Spadina Road
- M MISS LILLIAN ALICE CHASE, B A., ACADIA, M B ,  
*Demonstrator in Anatomy,*  
 Toronto General Hospital
- A PHILIP ALBERT CHILD, B A , M A , HARVARD,  
*Lecturer in English, ( T )*  
 Trinity College
- M HARVEY CLARE, M D , C M ,  
*Associate in Psychiatry,*  
 188 Geoffrey Street
- P ERIC KENT CLARKE, M.B ,  
 M *Special Lecturer in Mental Hygiene and Junior*  
*Demonstrator in Psychiatry,*  
 252 Roxborough Street East

- M ERNEST EDGAR CLEAVER, B A , M B ,  
*Senior Demonstrator in Medicine,*  
 155 Bloor Street East
- A ARTHUR ROGER CLUTE, B.A , LL B ,  
 S *Lecturer in Law, (U) and Special Lecturer in Limited  
 Companies and Common Law,*  
 47 Elgin Avenue.
- M HERBERT ERNEST CLUTTERBUCK, M D , C M ,  
*Demonstrator in Clinical Surgery,*  
 148 Grace Street
- H MISS HELEN ROBERTSON COATSWORTH, B A ,  
*Lecturer in Household Science,*  
 1 May Square
- M EDWARD COOPER COLE, O B E , B A , M B ,  
*Senior Demonstrator in Therapeutics,*  
 320 Bloor Street West
- M WARING GERALD COSBIE, M C , M B ,  
*Senior Demonstrator in Obstetrics and Gynaecology,*  
 30 Douglas Drive
- M WILLIAM ALFRED COSTAIN, M B ,  
*Junior Demonstrator in Clinical Surgery, and  
 Demonstrator in Anatomy,*  
 134 Arlington Avenue
- A EDWARD HORNE CRAIGIE, B A , PH D ,  
*Lecturer in Comparative Anatomy and Neurology,  
 (U)*  
 40 Leopold Street
- M JOHN GRANT CUNNINGHAM, B A , M B , D P H ,  
*Demonstrator in Industrial Hygiene,*  
 156 Evelyn Crescent.
- M HERBERT KNUDSEN DETWEILER, M D ,  
*Senior Demonstrator in Medicine,*  
 73 Regal Road
- M WILLIAM BEATTY DICKSON, B A , M B ,  
*Demonstrator in Anatomy,*  
 Hospital for Sick Children
- M WILLIAM HOWARD DICKSON, M.D , C.M , MCGILL,  
*Assistant Demonstrator in Radiology,*  
 Toronto General Hospital
- M HAMNETT ALONZO DIXON, M B.,  
*Junior Demonstrator in Medicine,*  
 122 Bloor Street West.
- A SEALEY PATRICK DOBBS, B A , CANTAB ,  
*Lecturer in Political Economy, (U)*  
 73 Charles Street West

- A GEORGE HENRY DUFF, PH D ,  
*Lecturer in Botany, (U)*  
 40 Willcocks Street
- M THOMAS ALEXANDER JAMIESON DUFF, MB, FRCS ,  
*Junior Demonstrator in Clinical Surgery,*  
 124 Bloor Street West
- S WALTER CAMERON CRUIKSHANK DUNCAN, B A SC ,  
*Lecturer in Electrical Engineering,*  
 196 Ellsworth Avenue
- S HOWARD B DUNINGTON GRUBB, B S A , CORNELL,  
*Special Lecturer in Landscape Architecture,*  
 1158 Bay Street
- M GEORGE HARDEY EAGLES, M D ,  
*Lecturer in Bacteriology,*  
 40 College Street
- M JABEZ HENRY ELLIOTT, M B ,  
*Associate in Medicine,*  
 11 Spadina Road
- M ISAAC H ERB, M B.,  
*Demonstrator in Pathological Chemistry, (Michaelmas Term)*  
 1549 Bloor Street West
- A M M ESTELLE, M.A , QUEEN'S,  
*Lecturer in Latin, (M)*  
 Loretto Abbey College
- A WALTER SCOTT FERGUSON,  
 S *Lecturer in Accounting, (U) and Special Lecturer in Accountancy and Business,*  
 52 Tranby Avenue
- M ALBERT GRANT FLEMING, M B., D P H ,  
*Demonstrator in Hygiene,*  
 Department of Public Health, City Hall
- M ANDREW ALMON FLETCHER, M B ,  
*Senior Demonstrator in Medicine,*  
 143 College Street
- M DONALD ROY FLETCHER, M D , C M ,  
*Assistant Demonstrator in Psychiatry,*  
 999 Queen Street West
- A HAROLD WILLIAM ALEXANDER FOSTER, D S O , M C , LL.B ,  
*Lecturer in Law, (U)*  
 100 Bedford Road
- M NICHOLAS D'ARCY FRAWLEY, M B.,  
*Associate in Obstetrics and Gynaecology,*  
 503 Markham Street

- MS HERBERT AUSTIN FRICKER, M A , LEEDS, MUS DOC ,  
*Lecturer in Choral and Orchestral Music,*  
 9 Powell Avenue.
- M ROBERT EDWARD GABY, B A , M D , CORNELL,  
*Demonstrator in Clinical Surgery,*  
 662 Bathurst Street.
- M JOHN GORDON GALLIE, B A , M B ,  
*Associate in Obstetrics and Gynaecology,*  
 143 College Street
- M GEORGE JOSHUA GILLAM, M B , F R C S ,  
*Demonstrator in Anatomy,*  
 234 Bloor Street East.
- M ROSCOE REID GRAHAM, M.B ,  
*Demonstrator in Clinical Surgery,*  
 112 College Street
- S WILLIAM HUBERT GREAVES,  
*Special Lecturer in Public Speaking,*  
 Aurora
- S WALTER SCOTT GUEST, B A SC.,  
*Lecturer in Electrical Engineering,*  
 30 McMaster Avenue
- M BENJAMIN GUYATT, M B ,  
*Demonstrator in Histology,*  
 173 College Street
- M NORMAN BEECHY GWIN, M B ,  
*Senior Demonstrator in Medicine,*  
 48 Bloor Street East
- M CHARLES H HAIR, M D , C M ,  
*Junior Demonstrator in Clinical Surgery,*  
 545 Palmerston Boulevard.
- E FRANK HALBUS, B A , McMASTER,  
*Lecturer in Physical Training,*  
 262 St. George Street
- MS ALBERT HAM, MUS DOC ,  
*Lecturer in Church Music,*  
 561 Jarvis Street
- M THOMAS RICHARD HANLEY, B A , M B ,  
*Junior Demonstrator in Anaesthesia,*  
 124 Bloor Street West
- M BEVERLEY HANNAH, M B ,  
*Senior Demonstrator in Medicine,*  
 155 Bloor Street East
- M CHARLES WILBUR HARRIS, B A , M B ,  
*Demonstrator in Bacteriology,*  
 1276 King Street West

- M ROBERT INKERMANN HARRIS, M.C, M B,  
*Demonstrator in Clinical Surgery,*  
311 Avenue Road.
- M ALFRED PURVIS HART, M B,  
*Senior Demonstrator in Pediatrics and Demonstrator  
in Pathological Chemistry,*  
151 Bloor Street West
- M JOHN HEPBURN, M B,  
*Junior Demonstrator in Medicine,*  
425 Grace Street
- A HARRY WARREN HILBORN, B A,  
*Lecturer in Italian and Spanish, (U)*  
58 Charles Street West
- M CLARENCE EDGAR HILL, M.B.,  
*Senior Demonstrator in Ophthalmology,*  
160 Bloor Street West
- M RAY HODGE, B A, M D,  
*Junior Demonstrator in Medicine,*  
33 Roxborough Drive
- SS MISS ANNIE FRANCES HODGKINS,  
*Special Lecturer in Social Service,*  
Employment Office, T Eaton Company
- S UBERT CECIL HOLLAND, B A Sc,  
*Lecturer in Mechanical Engineering,*  
1648 Dufferin Street
- A GEOFFREY ELWOOD HOLT, M A, MSc BAC,  
*Lecturer in German, (C)*  
280 Bloor Street West
- A SAMUEL HENRY HOOKE, M A, OXON, B D, LOND,  
*Lecturer in History, (U)*  
20 Highview Crescent
- M ARCHIBALD LESLIE HUETHER, B A, M B,  
*Demonstrator in Anatomy,*  
Hospital for Sick Children
- M GEORGE HUNTER, M A, BSc, B.Sc (AGRIC) GLASGOW.  
*Lecturer in Pathological Chemistry,*  
18 Alcona Avenue
- M ARCHIBALD GOWANLOCK HUNTSMAN, B A, M B,  
*Special Lecturer in Science and Civilization,*  
217 Indian Road
- M JOHN JOSEPH HURLEY, M.B.,  
*Junior Demonstrator in Anaesthesia,*  
995 Bathurst Street

- M HENRY SEATON HUTCHISON, M B,  
*Senior Demonstrator in Medicine*  
 30 Walker Avenue
- A HAROLD ADAMS INNIS, M A, McMASTER, PH D, CHICAGO,  
*Lecturer in Political Economy, (U)*  
 696 Markham Street
- M ROSS ALEXANDER JAMIESON, B.A, M.B,  
*Senior Demonstrator in Medicine,*  
 155 Bloor Street East
- M ROBERT MERRIDETH JANES, M B,  
*Junior Demonstrator in Clinical Surgery,*  
 143 College Street
- M EDWARD JEFFREY, M B,  
*Demonstrator in Pathological Chemistry,*  
 107 Carlton Street
- M SAMUEL JOHNSTON, M A, M.D, C M,  
*Lecturer in Anaesthesia,*  
 108 Avenue Road
- A HUBERT RICHMOND KEMP, M A,  
*Lecturer in Political Economy, (U)*  
 144 St George Street.
- A WILLIAM PAUL McCLURE KENNEDY, M A, DUBLIN, OXON,  
 LITT.D, DUBLIN,  
*Special Lecturer in Federal Institutions and in  
 Mediaeval Economics, (U)*  
 110 Quebec Avenue
- M JAMES ALEXANDER KINNEAR, M D, C M,  
*Associate in Obstetrics and Gynaecology,*  
 267 Russell Hill Road
- A MRS MOSSIE MAY KIRKWOOD, PH.D,  
*Lecturer in English, (C)*  
 79 St George Street
- M BASIL McDONNELL KOSTER, M D, C M, MCGILL,  
*Demonstrator in Pathology and in Anatomy,*  
 19 Hewitt Avenue
- A ALEXANDER LACEY, M A,  
*Lecturer in French, (V)*  
 145 Hillingdon Avenue
- S ROBERT EVERETT LAIDLAW, B A Sc,  
*Special Lecturer in Engineering Law,*  
 29A Shannon Street
- M WALTER WHITNEY LAILEY, B A, M B,  
*Senior Demonstrator in Obstetrics and Gynaecology,*  
 43 Avenue Road

- A HENRI LASSERRE, BÈS L, BÈS SC, L EN DR,  
*Special Lecturer in French, (V)*  
666 Spadina Avenue
- M GEORGE FRANKLIN LAUGHLIN, M.D, C M,  
*Demonstrator in Pathology,*  
495 Broadview Avenue
- M ALEXANDER SMIRLE LAWSON, M B,  
*Demonstrator in Anatomy,*  
82 College Street
- M ARTHUR BAKER LE MESURIER, M B,  
*Junior Demonstrator in Clinical Surgery,*  
59 Spadina Road
- M JULIAN DERWENT LOUDON, B A, M B,  
*Associate in Medicine,*  
83 St George Street
- M GLADSTONE WILFRED LOUGHEED, M.C, M D,  
*Senior Demonstrator in Clinical Microscopy,*  
728 Dovercourt Road
- M DONALD MACKINTOSH LOW, M.B,  
*Junior Demonstrator in Obstetrics and Gynaecology,*  
157 Wychwood Avenue
- S GEORGE HERBERT WILLIAM LUCAS, PH.D,  
*Lecturer in Chemical Engineering,*  
122 Kendal Avenue
- M MORTIMER LYON, M D, C M,  
*Senior Demonstrator in Ophthalmology,*  
122 Bloor Street West
- A WILLIAM JOHN MCANDREW, M.A,  
*Lecturer in French, (C.)*  
144 Balliol Street
- M JAMES CLARENCE MCCLELLAND, B A, M.B,  
*Junior Demonstrator in Clinical Surgery,*  
151 Bloor Street West
- M ROBERT ROY MCCLENAHAN, B A, M B, D P H,  
*Demonstrator in Hygiene,*  
54A Summerhill Gardens
- M ROBERT JAMES AVERY MCCOMB, M B,  
*Junior Demonstrator in Clinical Surgery,*  
40 Gothic Avenue
- M EDWARD ALLISTER MCCULLOCH, B A, M.B,  
*Demonstrator in Anatomy,*  
165 St Clair Avenue West



- M JOHN LAING MACDONALD, M B ,  
*Junior Demonstrator in Clinical Surgery,*  
 6 Edgewood Crescent
- M JOHN MACKAY MACDONALD, M D , C M ,  
*Demonstrator in Histology,*  
 687 Pape Avenue
- A VINCENT ARTHUR McDONOUGH, M B ,  
*Lecturer in Psychology, (M.)*  
 714 Dovercourt Road
- M GEORGE CRARER MCINTYRE, M B ,  
*Junior Demonstrator in Clinical Surgery,*  
 469 Parliament Street
- M ANGUS MACKAY, M B ,  
*Demonstrator in Pathology,*  
 592 Spadina Avenue
- M ALEXANDER JOHN MACKENZIE, B A , M B , LL B ,  
*Senior Demonstrator in Medicine,*  
 87 Spadina Road.
- M WILLIAM GEORGE MACKERSIE, M B ,  
*Demonstrator in Pharmacology,*  
 46 Gloucester Street
- SS ALEXANDER MACLAREN, B S A ,  
*Lecturer in Social Service,*  
 Georgetown
- M GORDON McLARTY, M B ,  
*Demonstrator in Psychiatry,*  
 124 Bloor Street West
- H MISS EVA MYRTLE McMILLAN, PH B , CHICAGO,  
*Lecturer in Household Science,*  
 46 Avenue Road
- SS JOHN WALKER MACMILLAN, B A , D D ,  
*Lecturer in Social Service,*  
 190 Dawlish Avenue
- M JAMES PLAYFAIR McMURRICH, M A , PH D , JOHNS HOPKINS,  
 LL D , MICHIGAN,  
*Special Lecturer in Science and Civilization and in  
 History of Medicine,*  
 75 Forest Hill Road
- M ARCHIBALD GEORGE MCPHEDRAN, B A , M B ,  
*Senior Demonstrator in Medicine and Demonstrator  
 in Histology,*  
 923 College Street

- M JOHN HARRIS MCPHEDRAN, M B,  
*Senior Demonstrator in Medicine and Clinical Medicine,*  
 33 Dupont Street
- SS MISS MARY ELMA MCPHEDRAN,  
*Lecturer in Social Service,*  
 116 Balmoral Avenue
- M WILLIAM FLETCHER MCPHEDRAN, B A, M B,  
*Senior Demonstrator in Medicine,*  
 15 Bernard Avenue.
- M OLIVER RAYMOND MABEE, PHM B, M D, C M, MCGILL,  
*Demonstrator in Clinical Surgery,*  
 419 Bloor Street West
- M WILLIAM MAGNER, M D, D P H,  
*Special Lecturer in Pathology and Bacteriology,*  
 509 Huron Street
- M MRS JANE P SPROULE MANSON, M B,  
*Junior Demonstrator in Oto-Laryngology,*  
 86 Bloor Street West
- A M M MARGARITA, B A,  
*Lecturer in Anglo-Saxon, (M.)*  
 Loretto Abbey College
- M ARNOLD DENLOW ALFRED MASON, D D S,  
*Assistant Demonstrator in Dental Surgery,*  
 86 Bloor Street West
- S JOHN WALLER MELSON, B A Sc,  
*Lecturer in Surveying,*  
 69 Walmsley Boulevard
- M EDWARD ARCHIBALD MORGAN, M B,  
*Senior Demonstrator in Pediatrics,*  
 160 Bloor Street West
- A MISS SUSAN GERTRUDE MORLEY, M A,  
*Lecturer in Classics, (T)*  
 87 Howland Avenue
- MS FERDINAND ALBERT MOURÉ, MUS DOC,  
*Lecturer in the History of Music,*  
 490 Huron Street
- M LEONARD M MURRAY, M D, C M, MCGILL,  
*Senior Demonstrator in Medicine, and Clinical Medicine,*  
 160 Bloor Street West
- A ARTHUR ANGUS NORTON, B A, CANTAB,  
*Lecturer in French, (T)*  
 369 Indian Grove

- M WILLIAM EDWARD OGDEN, M B ,  
*Senior Demonstrator in Medicine,*  
 9 Spadina Road
- M THOMAS JEFFERSON PAGE, M B ,  
*Senior Demonstrator in Medicine,*  
 941 Bathurst Street
- M FRANK STEWART PARK, B A , M B ,  
*Junior Demonstrator in Medicine,*  
 2 Glengrove Avenue West
- M CHARLES BEMISTER PARKER, B A., M B ,  
*Demonstrator in Clinical Surgery,*  
 52 College Street
- M WILFRID ROWAN PARKS, M B ,  
*Junior Demonstrator in Anaesthesia,*  
 27 Manor Road East
- M HAROLD CAMPBELL PARSONS, M A , M D , C M ,  
*Associate in Medicine,*  
 6 Clarendon Avenue
- M ROBIN PEARSE, F R C S ,  
*Demonstrator in Clinical Surgery,*  
 206 Bloor Street West
- A LESTER BOWLES PEARSON, B.A , TOR., OXON ,  
*Lecturer in History, (U )*  
 Middle House, Victoria College
- A ROBERT EDWARD KINGSDOWN PEMBERTON, M A , OXON.,  
*Lecturer in Classics, (T )*  
 Trinity College
- A M PERPETUA, B.A ,  
*Lecturer in German, (M )*  
 St Joseph's College
- E SAMUEL WALTER PERRY, B A ,  
*Lecturer in Art and Commercial Work,*  
 406 Brunswick Avenue
- P JOHN THOMAS PHAIR, M.B , D P H ,  
*Special Lecturer in School Hygiene,*  
 99 Rose Park Drive.
- M GEORGE ROWE PHILP, M B ,  
*Demonstrator in Pathology,*  
 607 Sherbourne Street.
- M GEORGE ROBINSON PIRIE, M B ,  
*Senior Demonstrator in Pediatrics,*  
 20 Madison Avenue

- M GEORGE DANA PORTER, M B ,  
*Lecturer in Hygiene,*  
15 Oriole Gardens
- A EDWIN JOHN PRATT, PH D ,  
*Lecturer in English, (V)*  
25 Tullis Drive
- A MISS MARJORIE GORDON REID, B A , B LITT , OXON ,  
*Lecturer in History, (U.)*  
85 St George Street
- M GORDON EARLE RICHARDS, M B ,  
*Associate in Radiology,*  
325 St George Street
- M DAVID EDWIN ROBERTSON, M D ,  
*Demonstrator in Clinical Surgery,*  
112 College Street
- A HARTLEY GRANT ROBERTSON, B A., PH D , CHICAGO,  
*Lecturer in Classics, (V)*  
409 Brunswick Avenue
- A JOHN DANIEL ROBINS, M A ,  
*Lecturer in German, (V)*  
187 Lauder Avenue
- A DAVID ANTON FREDERICK ROBINSON, M A ,  
*Lecturer in Mathematics, (U )*  
54 Albany Avenue
- M THOMAS ARNOLD ROBINSON, M D , C.M , MCGILL,  
*Junior Demonstrator in Clinical Surgery,*  
147 Howard Park Avenue
- M WILLIAM LIPSETT ROBINSON, B A , MCMASTER, M B ,  
*Lecturer in Surgical Pathology,*  
6 Donchiffe Drive
- M CHARLES HAROLD ROBSON, M D , C M ,  
*Junior Demonstrator in Anaesthesia,*  
26 Foxbar Road.
- A REV WILLIAM ROLLO, M A , ABERDEEN,  
*Lecturer in Hebrew, (T.)*  
Trinity College
- M FREDERICK WHITNEY ROLPH, M A , M D , C M ,  
*Senior Demonstrator in Medicine,*  
13 Madison Avenue
- M JAMES WELLS ROSS, M B , M S , MINN ,  
*Junior Demonstrator in Clinical Surgery,*  
64 Bloor Street East.

- A MISS MARY COYNE ROWELL, B A ,  
*Lecturer in French, (V.)*  
 101 Madison Avenue
- M NORMAN HODGINS RUSSELL, M B ,  
*Demonstrator in Pathology,*  
 Biampton
- M EDWARD STANLEY RYERSON, M D , C.M. ,  
*Associate in Clinical Surgery*  
 14 Delisle Avenue
- E ALLEN NELSON SCARROW,  
*Lecturer in Manual Training,*  
 8 Conrad Avenue
- M WALLACE ARTHUR SCOTT, C.M.G. , B.A. , M.B. , F.R.C.S. ,  
*Associate in Surgery and Clinical Surgery,*  
 627 Sherbourne Street
- M WILLIAM ALBERT SCOTT, B A , M B ,  
*Associate in Obstetrics and Gynaecology,*  
 75 Bloor Street East.
- P WALLACE SECCOMBE, D D S ,  
*Special Lecturer in Oral Hygiene,*  
 240 College Street
- S HORACE LLEWELLYN SEYMOUR, B.A. SC. , C.E. ,  
*Special Lecturer in Town Planning,*  
 504 Excelsior Life Building
- M CHARLES SHEARD, JR. , M B ,  
*Senior Demonstrator in Medicine,*  
 52 College Street
- M NORMAN STRAHAN SHENSTONE, B A , M D , COLUMBIA,  
*Associate in Surgery and Clinical Surgery,*  
 196 Bloor Street West
- A NORRIS EDWARD SHEPPARD, M A ,  
*Lecturer in Mechanics, (U)*  
 314 Keele Street
- M HARRY JAMES SHIELDS, B A. , M B ,  
*Junior Demonstrator in Anaesthesia,*  
 102 College Street
- M EDWARD EARLE SHOULDS, M.B. ,  
*Junior Demonstrator in Clinical Surgery, and Demon-*  
*strator in Anatomy,*  
 461 Dovercourt Road
- M CHARLES BUCKINGHAM SHUTTLEWORTH, M D , C.M. , F.R.C.S. ,  
*Associate in Surgery and Clinical Surgery,*  
 478 Huron Street

- M GIDEON SILVERTHORNE, M B,  
*Associate in Clinical Surgery,*  
 34 North Sherbourne Street.
- M ROY WILFRID SIMPSON, M B,  
*Junior Demonstrator in Pediatrics,*  
 280 Danforth Avenue
- M HENRY ALAN LAWSON SKINNER, M B,  
*Demonstrator in Bacteriology,*  
 14 Madison Avenue
- M GEORGE EDWARD SMITH, B.A, M B,  
*Senior Demonstrator in Pediatrics,*  
 244 Bloor Street West
- M WILLMOT EDWARD LENOX SPARKS, M B,  
*Demonstrator in Anatomy,*  
 455 Windermere Avenue
- P CHARLES MONTAGUE DISCOMBE SPARROW,  
*Special Lecturer in Public Speaking,*  
 83 St Joseph Street
- SS FRANK NEIL STAPLEFORD, M A, B D.,  
 P *Lecturer in Social Service, and Special Lecturer in*  
*Social Work,*  
 543 Windermere Avenue
- A ARTHUR FRANCIS CHESTERFIELD STEVENSON, B A, CANTAB.,  
*Lecturer in Mathematics, (U)*  
 112 Bedford Road
- A M ST JOHN, B A,  
*Lecturer in Latin, (M),*  
 St Joseph's College
- M GEORGE STEWART STRATHY, M D, C M,  
*Associate in Medicine,*  
 143 College Street
- A REV BASIL SULLIVAN, M A,  
*Lecturer in Social Ethics, (M)*  
 St Michael's College
- M ROY HINDLEY THOMAS, M C, M B,  
*Junior Demonstrator in Clinical Surgery,*  
 167 College Street
- M FREDERICK FITZGERALD TISDALL, M B,  
*Junior Demonstrator in Pediatrics,*  
 102 College Street
- S JAMES EDWIN TOOMER, B S, N CAROLINA STATE COLLEGE OF  
 ENGINEERING,  
*Lecturer in Metallurgical Engineering,*  
 328 Brunswick Avenue

- M EMERSON JAMES TROW, M B,  
*Senior Demonstrator in Medicine,*  
 122 Bloor Street West.
- S HOWELL ALFRED TUTTLE, B A SC,  
*Lecturer in Mechanical Engineering,*  
 Hart House, University of Toronto
- M HERMON BROOKFIELD VANWYCK, B A, M B,  
*Junior Demonstrator in Obstetrics and Gynaecology,*  
 280 Danforth Avenue
- A WILLIAM STEWART WALLACE, B A, M A, OXON,  
*Special Lecturer in History, (U)*  
 59 Poplar Plains Road
- M HARDOLPH WASTENEYS, PHD, COLUMBIA,  
*Special Lecturer in Science and Civilization,*  
 20 Howland Avenue
- M WILLIAM VIRGIL WATSON, M B,  
*Senior Demonstrator in Therapeutics,*  
 120 Quebec Avenue
- MS HEALEY WILLAN, MUS DOG,  
*Lecturer in Theory of Music,*  
 139 Inglewood Drive.
- M HERBERT GEORGE WILLSON, B A, M D,  
*Demonstrator in Anatomy,*  
 • 186 Spadina Road
- M GEORGE EWART WILSON, M B, F R C S,  
*Associate in Surgery and Clinical Surgery,*  
 205 Bloor Street East.
- M MALCOLM JAMES WILSON, M A, M B,  
*Demonstrator in Physiology,*  
 191 Spadina Road
- A SIR BERTRAM COGHILL ALAN WINDLE, M A, M D, SC D,  
 DUBLIN, PH D, ROME, LL D, BIRMINGHAM, F R S,  
*Special Lecturer in Ethnology, (U)*  
 48 Roselawn Avenue
- M DAVID EDMUND STAUNTON WISHART, B A, M B,  
*Junior Demonstrator in Oto-Laryngology,*  
 47 Grosvenor Street
- M OSWALD CHARLES JOSEPH WITHROW, M B,  
*Demonstrator in Histology,*  
 446 Bloor Street West
- M JAMES HENRY WOOD, D S O, M B,  
*Junior Demonstrator in Clinical Surgery,*  
 1062 Dovercourt Road.

- A MISS GLADYS INGLESON WOOKEY, M A ,  
*Lecturer in English, (C)*  
 320 Spadina Road
- M HAROLD WILLIAM WOOKEY, M B , F R C S ,  
*Junior Demonstrator in Clinical Surgery,*  
 102 College Street
- M ARTHUR BALDWIN WRIGHT, M B ,  
*Demonstrator in Clinical Surgery,*  
 52 Poplar Plains Road
- A MISS JESSIE GERTRUDE WRIGHT, PH D ,  
*Lecturer in Botany, (U)*  
 538 Sherbourne Street
- S WILLIAM JAMES TURNBULL WRIGHT, M B E , B A Sc ,  
*Lecturer in Engineering Drawing,*  
 126 Melrose Avenue.
- M WALTER WALKER WRIGHT, M B ,  
*Senior Demonstrator in Ophthalmology,*  
 143 College Street
- M GEORGE SILLS YOUNG, B A , M B . ,  
*Associate in Medicine,*  
 143 College Street

# OTHER APPOINTMENTS

- R FRANK NATHANIEL ALLAN, M B ,  
*Research Assistant in Physiology,*  
 Knox College
- S ERNEST BASIL ANDERSON, B A Sc ,  
*Demonstrator in Thermodynamics,*  
 84 Macpherson Avenue
- A JOHN WESLEY ANSLEY, B A ,  
*Class Assistant in Botany, (U)*  
 63 Gothic Avenue
- A RALPH GEORGE ARCHIBALD, B A , M A N ,  
*Fellow in Mathematics, (U)*  
 96 Ann Street
- S SAMUEL WALLACE ARCHIBALD, B A Sc ,  
*Demonstrator in Engineering Drawing,*  
 489 Brunswick Avenue
- A HAROLD FREDERICK BALMER, B A ,  
*Demonstrator in Astronomy, (U.)*  
 917 Dovercourt Road.



- A COLIN BARNES, M.Sc, LEEDS,  
*Demonstrator in Physics, (U)*  
30 Willcocks Street
- M JOSEPH EDGAR BATES, B A, McMASTER, M B,  
*Fellow in Pathology,*  
358 Markham Street
- R ARTHUR ARMSTRONG BELL, B A Sc,  
*Research Assistant in Metallurgical Engineering,*  
563 Gladstone Avenue.
- A LOUIS AUGUSTE BIBET,  
*Instructor in French, (C, T)*  
47 Cecil Street
- A NORMAN KIER BIGELOW, B.Sc, IOWA,  
*Assistant in Systematic Biology, (U)*  
158 Cumberland Street
- A WALTER GORDON BIRRELL, B A Sc,  
*Assistant in Electro-Chemistry, (U)*  
1254 Bloor Street West
- S ALBERT CRAWFORD BLUE, B A Sc,  
*Demonstrator in Mechanical Engineering,*  
487 St Claiens Avenue
- M HENRY BORSOOK, M A,  
*Fellow in Biochemistry, (Easter Term),*  
246 Lippincott Street
- R DONALD JAMES BOWIE, B Sc, (MED ),  
*Research Assistant in Physiology,*  
231 Beatrice Street
- A CHARLES CLINTON BROWN, PHMB, M B,  
*Class Assistant in Biology, (U)*  
1978 Dufferin Street
- M WILLIAM EASSON BROWN, M B,  
*Fellow in Therapeutics,*  
10 Carlton Street
- A GEORGE MILLER BRYCE,  
*Class Assistant in Astronomy, (U)*  
3 Bowden Avenue
- M FREDERICK MATHEW RAYMOND BULMER, M B,  
*Fellow in Therapeutics,*  
592 Ossington Avenue
- H MISS FRANCES BURWASH, B A,  
*Assistant in Food Chemistry,*  
101 Gloucester Street
- M GORDON CAMPBELL CAMERON, M D,  
*Fellow in Pathology,*  
65 Hilton Avenue

- A MISS RUTH CARNAHAN, B A.,  
*Demonstrator in Physics, (U)*  
52 Regal Road
- A SPERRIN NOAH FULTON CHANT, B A.,  
*Class Assistant in Psychology, (U)*  
52 St Nicholas Street.
- S FREDERICK COATES,  
*Instructor in Modelling,*  
Scarborough Bluffs.
- A JOSEPH WILFRED COHEN, B A., MCMASTER, M A.,  
*Assistant in Logic, (U)*  
33 Nassau Street.
- A MISS FRED A COLE, B A.,  
*Assistant in French, (C)*  
103 Gloucester Street.
- R BEAUMONT SANDFIELD CORNELL, M B.,  
*Research Assistant in Banting-Best Research,*  
49 Grenville Street
- P MISS KATE S COWAN,  
*Supervisor of Practical Work,*  
50 Maitland Street
- R HAROLD CREIGHTON CRANE, B A SC.,  
*Research Assistant in Aeronautics,*  
50 Simpson Avenue
- S JAMES JACKSON CRAWFORD, B A SC.,  
*Demonstrator in Chemical Engineering,*  
85 Bloor Street East
- A MISS KATHLEEN MAY CROSSLEY, B A.,  
*Demonstrator in Physics, (U)*  
290 Huron Street
- A JOHN ELGIN CURRIE, B A.,  
*Demonstrator in Physics, (U)*  
Knox College
- M WILLIAM ALLAN DAFOE, M B.,  
*Resident Fellow in Obstetrics and Gynaecology,*  
Toronto General Hospital
- S WILFRID ALAN DANCEY, B A SC.,  
*Demonstrator in Electrical Engineering,*  
23 Surry Place
- A GRANT DOOKS DARKER, B A.,  
R *Assistant in Botany, (U)*  
Streetsville

- M JAMES ARNOLD DAUPHINEE, M A , BRITISH COLUMBIA,  
*Fellow in Bio-Chemistry,*  
 293 Huron Street
- R GEORGE ALBERT DAVIS, B.A , M B ,  
*Research Fellow in Paediatrics,*  
 1550 Yonge Street
- M MISS JEAN DEAS, B A ,  
*Demonstrator in Pharmacy,*  
 Athelma Apartments, Grosvenor Street
- S ANTOINE VALENTINE DELAPORTE, B A Sc ,  
*Instructor in Sanitary Chemistry,*  
 189 Robert Street.
- R BASIL ROSSER DICKSON, B Sc , (MED ),  
*Research Assistant in Physiology,*  
 652 Spadina Avenue
- S WILLIAM LOCHEAD DICKSON, B.A Sc ,  
*Demonstrator in Engineering Drawing,*  
 76 Pinewood Avenue
- R HAROLD MARSHALL DILWORTH, B.A.Sc ,  
*Research Assistant in Chemical Engineering,*  
 259 Howland Avenue.
- S FRANCIS PATRICK DOWNEY, M A Sc ,  
*Demonstrator in Chemical Engineering and Applied Chemistry,*  
 320 Robert Street
- M MISS KATHLEEN DREW, B A ,  
*Fellow in Pathological Chemistry,*  
 20 Chestnut Park Road
- R ALEXANDER ROBERT DUFF, B A Sc ,  
*Research Assistant in Civil Engineering,*  
 211 Fern Avenue.
- S WILLIAM BOWIE DUNBAR, B A Sc ,  
 R *Instructor in Engineering Drawing, and Research Assistant in Civil Engineering,*  
 241 Glebeholme Boulevard
- A WILLIAM SPAFFORD DYER, PH.D ,  
*Class Assistant in Geology, ( U )*  
 70 Colbeck Street.
- M GEORGE SHARPE EADIE, B.A., M B ,  
 R *Fellow in Bio-Chemistry, and Research Assistant in Physiology,*  
 899 Queen Street West
- M BLYTHE EDMUND EAGLES, B A , BRITISH COLUMBIA,  
*Fellow in Pathological Chemistry,*  
 293 Huron Street

- A MISS EDNA VICTORIA EASTCOTT, M.A.,  
R *Assistant in Chemistry, (U.)*  
85 St. George Street
- A ALBERT WELLINGTON ENTWISTLE,  
*Class Assistant in Astronomy, (U)*  
Knox College
- R EDWARD FIDLAR, B A, M D.,  
*Research Assistant in Physiology,*  
310 Huron Street.
- A MISS NORMA HENRIETTA CARSWELL FORD, PH D,  
*Instructor in Biology, (U)*  
96 Dunn Avenue.
- S HAROLD JAMES FRANKLIN, B A SC,  
*Instructor in Engineering Drawing,*  
72 Delaware Avenue.
- M WILBUR ROUNDING FRANKS,  
*Part-time teaching Fellow in Physiology,*  
142 St George Street
- M MISS CHRISTINA JANE FRASER, M A,  
R *Demonstrator in Bacteriology, and Assistant in  
Dental Research,*  
218 Cottingham Street
- R HAROLD EDGERTON FRENCH, B A SC,  
*Research Assistant in Mining Engineering,*  
86 Dundonald Street
- A MISS CLARA WINIFRED FRITZ, B A., M SC., MCGILL,  
R *Instructor in Botany, (U.), and Research Assistant  
in Botany,*  
Apartment 5, Sussex Court
- R REGINALD ARTHUR HARVEY GALBRAITH, B A SC,  
*Research Assistant in Electrical Engineering,*  
37 Humewood Court
- A JAMES DAVIS GARRARD, B A, OXON,  
*Assistant in Chemistry, (U)*  
Chemistry Building
- R ALBERT HALDANE GEE, M A,  
*Research Assistant in Chemistry,*  
Suite D, 308 Jarvis Street
- A MISS MYRTLE BICK GIVENS, B A, QUEENS,  
*Class Assistant in Botany, (U)*  
530 Spadina Avenue
- A THOMAS LLOYD GLEDHILL, M A,  
*Class Assistant in Geology, (U)*  
335 Brunswick Avenue

- A ANDREW ROBERTSON GORDON, M A ,  
*Assistant in Electro-Chemistry, (U)*  
 40 Heath Street West
- S WILFRED JOHN GRANT, B A Sc ,  
*Demonstrator in Chemical Engineering and Applied Chemistry,*  
 83 Quebec Avenue
- H MISS FLORENCE MARIE GRAPER, B S , WISCONSIN, M A ,  
*Instructor in Household Science,*  
 157 Bloor Street West
- M JOHN C HALLAMORE, PHM B ,  
*Class Assistant in Pharmacology,*  
 455 Shaw Street
- S ALBERT EDWARD HAMILTON, B A Sc ,  
*Demonstrator in Electrical Engineering,*  
 4 Grandview Avenue
- A MISS EVANGELINE HARRIS, B A , OKON, M A ,  
*Instructor in Latin, (C)*  
 94 St George Street
- A JOHN LAWSON HART,  
*Assistant in Botany, (U)*  
 43 Indian Road Ciescent
- R MISS DAISY DENSHAM HEARN,  
*Research Assistant in Psychology,*  
 249 Dovercourt Road
- R ROY JARVIS HENRY, B A Sc ,  
*Research Assistant in Mining Engineering,*  
 489 Brunswick Avenue
- M JOHN HEPBURN, M B ,  
*Fellow in Physiology,*  
 425 Grace Street
- M FREDERICK WILLIAM WATTS HIPWILL, M.B ,  
*Class Assistant in Pharmacology,*  
 452 Danforth Avenue.
- A GORDON IRVINE HOOVER, B A ,  
*Assistant in Chemistry, (U)*  
 40 College Street
- A JOHN HENRY HORNING, M A ,  
*Demonstrator in Astronomy, (U)*  
 30 Vimy Ridge Avenue
- S CHESTER ARTHUR HUGHES, M M , M A.Sc.,  
*Instructor in Applied Mechanics,*  
 Mimico Beach.

- A HENRY JOHN CUNNINGHAM IRETON, M A ,  
*Demonstrator in Physics, (U.)*  
 59 Maitland Street
- F CECIL HOLMES IRWIN, B Sc F ,  
*Assistant in Forestry, (Michaelmas Term )*  
 33 Glenwood Avenue.
- S KENNETH BELL JACKSON, B A Sc ,  
*Instructor in Engineering Physics and Photography.*  
 South House, University of Toronto
- A WALTER ERASTUS JACKSON, M A ,  
*Demonstrator in Astronomy, (U )*  
 195 Cottingham Street
- S CHARLES WILLIAM JEFFERYS,  
*Instructor in Freehand Drawing,*  
 York Mills
- M EDWARD JEFFREY, M B ,  
*Assistant Demonstrator in Clinical Microscopy,*  
 107 Carlton Street
- A CLARENCE MANSELL JEPHCOTT, B A ,  
*Assistant in Chemistry, (U )*  
 91 St George Street
- S PERCY VANDELEUR JERMYN, B A Sc ,  
*Demonstrator in Engineering Drawing,*  
 Port Credit.
- S REGINALD PHILLIPS JOHNSON, B A Sc ,  
*Demonstrator in Engineering Drawing,*  
 1531 Queen Street West
- R GEORGE FRED KAY, B A Sc ,  
*Research Assistant in Chemical Engineering,*  
 184 Lee Avenue
- A SHERWIN FINCH KELLY, B Sc , KANSAS,  
*Assistant in Geology, (U )*  
 32 Irwin Avenue
- R MISS FLORENCE B KELSEY,  
*Research Assistant in Obstetrics and Gynaecology,*  
 Toronto General Hospital
- A MISS JANET CARLYLE LAING, B A ,  
*Instructor in French, (C )*  
 39 MacFarland Avenue
- M ROSS STANLEY LANG, M A , M B ,  
*Fellow in Physiology,*  
 Toronto General Hospital
- R ROY CAMPBELL LESLIE, B A Sc ,  
*Research Assistant in Civil Engineering,*  
 304 Windermere Avenue

- A ARCHIE CLIFFORD LEWIS, M A ,  
*Assistant Demonstrator in Physics, (U)*  
 107 Macpherson Avenue
- R CLAYTON ELLWOOD LEWIS, B A SC ,  
*Research Assistant in Civil Engineering,*  
 Apartment 3, 340 Clinton Street
- M FREDERICK IRA LEWIS, M B ,  
*Fellow in Pathology,*  
 142 St George Street.
- A MISS CLARA ISABELLA LISTER, B A ,  
*Fellow in Mathematics, (U.)*  
 395 Huron Street
- A MISS ADELINE LOBB, B A , TOR, OXON ,  
*Instructor in English, (C)*  
 1 Washington Avenue
- M HUGH DAVID LOGAN, M.B ,  
*Fellow in Physiology,*  
 142 St George Street.
- R GEORGE HERBERT WILLIAM LUCAS, PH.D ,  
*Research Assistant in Chemistry,*  
 122 Kendal Avenue
- R ERNEST WILLARD MCBRIDE, B.A SC ,  
*Research Assistant in Chemical Engineering,*  
*(Michaelmas Term)*  
 87 Woodside Avenue.
- S ROBERT HENRY MCCABE, B A SC.,  
*Demonstrator in Electrical Engineering,*  
 30 Ross Street.
- M NORMAN ARNOLD MCCORMICK, M.A ,  
 R *Fellow in Physiology, and Research Assistant in*  
*Physiology,*  
 South House, University of Toronto
- A ALBERT ERNEST MCCULLOCH, B A , M B ,  
*Class Assistant in Biology, (U)*  
 165 St Clair Avenue West
- M JAMES ALEXANDER MACDONALD, PHM.B ,  
*Class Assistant in Pharmacology,*  
 84 Hogarth Avenue.
- M GEORGE MURRAY MCFARLANE, B.A , SASK.,  
*Fellow in Bio-chemistry,*  
 East House, University of Toronto.
- M MISS JENNIE MCFARLANE, M A ,  
*Demonstrator in Bio-chemistry,*  
 72 Albany Avenue.

- SS MISS AGNES CHRISTINE MCGREGOR,  
*Director of Field Work,*  
Apt 4, 82 St Albans Street
- M HECTOR HUGH MACKAY, B A ,  
R *Demonstrator in Histology and Research Assistant in  
Biology,*  
312 Robert Street
- A LOUIS ALEXANDER MACKAY, B A ,  
*Fellow in Latin, (V )*  
North House, Victoria College
- M KENNETH GEORGE MCKENZIE, M B ,  
*Fellow in Surgery,*  
1017 Bathurst Street
- S JOHN GRAHAM MCNIVEN, M A.Sc.,  
R *Demonstrator in Mining Engineering, (Michaelmas  
Term) and Research Assistant in Mining En-  
gineering, (Easter Term)*  
300 Huron Street
- S WILFRED HAROLD MACKLIN, B A.Sc ,  
*Demonstrator in Electrical Engineering,*  
345 Bloor Street West
- M MISS MARION MAITLAND, B A ,  
R *Class Assistant in Hygiene, and Research Assistant  
in Connaught Antitoxin Laboratories,*  
85 St George Street
- M PETER JOSEPH MOLONEY, M A ,  
*Demonstrator in Sanitary Chemistry,*  
Scarborough Junction
- A MISS OLIVE MONKMAN,  
*Class Assistant in Biology, (U.)*  
139 Boon Avenue
- S MICHAEL MILINOCKET MONTEMURRO, B.A Sc ,  
*Demonstrator in Electrical Engineering,*  
11 Edgedale Road
- M JOSEPH ALAN MORRELL, M A ,  
*Fellow in Biochemistry, (Michaelmas Term )*  
404 Dupont Street
- M MISS KATHLEEN MULDOON, PHM B ,  
*Class Assistant in Pharmacology,*  
476 Clendenan Avenue
- A MAURICE JOSEPH MULLIGAN, B A ,  
*Assistant in Chemistry, (U.)*  
104 Charles Street West.



- M EDWARD CLARK NOBLE, B.A.,  
 R *Fellow in Physiology, and Research Assistant in Physiology,*  
 216 St Clair Avenue West
- R KENNETH FURBY NOXON, B A SC ,  
*Research Assistant in Architectural,*  
 158 St George Street
- R STEWART URQUHART PAGE, M A ,  
*Research Assistant in Physiology,*  
 941 Bathurst Street
- H MISS JEAN PANTON, B A.,  
*Instructor in Food Chemistry,*  
 101 Gloucester Street
- H MISS EDNA WILHELMINE PARK, M.A ,  
*Instructor in Household Science,*  
 25 Grosvenor Street
- R MISS MARY CURTEIS PARKER,  
*Research Assistant in Physiology, (Easter Term )*  
 1 Scarth Road
- A MRS. ELISA PATTERSON, B.S.C E P ,  
*Assistant in French, ( C )*  
 29 Aymer Avenue
- S HUGH BRADFORD PATTON, B SC , MCGILL,  
*Demonstrator in Electrical Engineering,*  
 58 St. George Street
- R FRANCIS REGINALD PEMBER, B SC , (MED ),  
*Research Assistant in Physiology,*  
 29 Frizzell Avenue
- S EDWARD BERTRAM PHILIP, B A SC ,  
 R *Demonstrator in Mechanical Engineering, and Research Assistant in Mechanical Engineering,*  
 Islington
- A REVERDY ADELBERT PROSSER, B.SC , ACADIA,  
*Assistant in Chemistry, ( U )*  
 719 Spadina Avenue
- R HUGH JOHN PUGSLEY,  
*Research Assistant in Mechanical Engineering,*  
 8 Willcocks Street.
- A MISS FLORENCE MARY QUINLAN, M.A.,  
*Demonstrator in Physics, ( U )*  
 1 DeLisle Avenue.
- S JOHN THOMAS RANSOM, B A.SC ,  
*Demonstrator in Engineering Physics and Photography,*  
 171 Arlington Avenue.

- S JAMES WALLER REEBECK, B SC, BRITISH COLUMBIA, M A ,  
*Demonstrator in Chemical Engineering,*  
 169 Avenue Road
- A MISS ANNIE THERESA REED, B A ,  
*Class Assistant in Physics, (U)*  
 24 Willcocks Street
- A HAROLD COLMAN RICKABY, M A ,  
*Assistant in Mineralogy, (U)*  
 Y M C A, 40 College Street
- R MISS JESSIE HAMILTON RIDOUT, B A ,  
*Assistant in the Banting-Best Research,*  
 179 Parkside Drive
- A CLIFFORD GEORGE RILEY, B S A ,  
 R *Assistant in Botany, (U) and Research Assistant in Botany,*
- E MISS ALICIA ENID ROBERTSON,  
*Instructor in Household Science,*  
 19 Hazelton Avenue.
- M ALBERT HILL ROLPH, B A., M.B ,  
*Assistant Demonstrator in Radiology,*  
 Hospital for Sick Children
- S COLIN CONSTABLE ROUS, B A Sc ,  
*Demonstrator in Engineering Drawing,*  
 227 Cottingham Street
- A REV EDWARD LEONARD RUSH, B A , WESTERN,  
*Instructor in French, (M)*  
 St Michael's College
- S WILLIAM LISTER SAGAR, B A Sc.,  
*Instructor in Civil Engineering and Applied Mechanics,*  
 Apt 1, 114 Carlton Street
- A MISS LAILA CORDELIA SCOTT, M A ,  
*Reader in French, (T)*  
 13 Admiral Road
- R WILLIAM CLIFFORD MUNROE SCOTT,  
*Assistant in Anatomy, (Easter Term)*  
 17 Grange Road
- R BERNARD SHAFER, B A Sc ,  
*Research Assistant in Chemical Engineering,*  
 85 Brunswick Avenue
- M NOBLE CARMAN SHARPE, B A , M B ,  
*Class Assistant in Pharmacology,*  
 2741 Yonge Street

- R WILLIAM WALKER SHAVER, M A ,  
*Research Assistant in Physics,* 1143 Bay Street.
- A ALLEN GOODRICH SHENSTONE, B S , M A , PRINCETON, B A.,  
 CANTAB.,  
*Demonstrator in Physics, (U)* 40 Walmer Road
- S JOSEPH ERIC BENJAMIN SHORTT, B.A Sc ,  
*Demonstrator in Thermodynamics* 401 Quebec Avenue
- R GORDON MERRITT SHRUM, PH D ,  
*Research Assistant in Physics,*  
 Middle House, Victoria College.
- R MISS WINIFRED SIMPSON, B A ,  
*Research Assistant in Pathology,* Thornhill
- S ADAM WYNDHAM SIMPSON SMITH, B Sc , MCGILL,  
*Demonstrator in Electrical Engineering,* 27 Harbord Street
- S EARL WESLEY SMITHSON, B.A.Sc ,  
*Demonstrator in Electrical Engineering,* 74 Evans Avenue
- A ELTON MILTON SPARLING, B A ,  
*Assistant in Chemistry, (U)* 58 Beatrice Street
- S HENRY EMERSON STEWART, B A Sc ,  
*Demonstrator in Mining Engineering,* 5 Willcocks Street.
- A CARL WILLIAM SWEITZER, B A ,  
*Assistant in Chemistry, (U)* 48 Dundonald Street
- M ANDREW COPELAND TAYLOR, B A ,  
*Fellow in Physiology,* 6 Aberdeen Club, Bain Avenue
- A MISS GEORGIA MURIEL PAXTON TAYLOR, B A ,  
*Fellow in Mathematics, (U)* 1584 Davenport Road
- A ALFRED EDWIN TILBY,  
*Instructor in French, (C)* 710 Spadina Avenue.
- R ELDRED WALTON TODD, B A ,  
*Research Assistant in Mineralogy,* 858 Woodbine Avenue.

- R MISS MARY ISABEL TOM, B A , M B ,  
*Research Assistant in Anatomy,*  
 101 Gloucester Street
- R GORDON FREDERICK TRACY, B A Sc.,  
*Research Assistant in Electrical Engineering,*  
 173 Walmer Road
- M HENRY EDMUND PETER VALE, B A ,  
*Demonstrator in Bacteriology,*  
 75 Huntley Street
- R MISS CHARLOTTE VALENTINE, B A ,  
*Research Worker in Household Science,*  
 37 Classic Avenue
- M JOHN FAIR VAN EVERY, B A ,  
*Instructor in English Expression,*  
 13 Wells Street
- R RALPH CYRIL VEALS, B A Sc ,  
*Research Assistant in Chemical Engineering,*  
 39 Grenadier Road
- M FULTON SCHUYLER VROOMAN, M B ,  
*Assistant Demonstrator in Psychiatry,*  
 999 Queen Street West
- A MISS MARY EVELYN GERTRUDE WADDELL, M A ,  
*Instructor in Mathematics, (U.)*  
 72 Madison Avenue
- A ANSON ROBERTSON WALKER, B A , QUEEN'S, M.A ,  
 R *Instructor in Botany, (U ) , and Research Assistant in Botany,*  
 20 Gibson Avenue
- A ROBERT BRUCE WALKER, B.A ,  
*Assistant in Chemistry, (U )*  
 65 Clinton Street
- A PAUL ANTHONY WILSON WALLACE, M A ,  
*Instructor in English, (C )*  
 378 Markham Street
- M WILFRID PARSONS WARNER, M B.,  
*Fellow in Physiology and in Medicine,*  
 142 St. George Street.
- A PERCIVAL SIDNEY WARREN, B A ,  
*Class Assistant in Geology, (U )*  
 40 Elgin Avenue
- A WADE RALPH WATSON,  
*Assistant in Botany, (U )*  
 117 Beaconsfield Avenue

- S JULIUS JOHN WEICKER, B A Sc ,  
*Demonstrator in Hydraulics,*  
 11 Jones Avenue
- R CHARLES BEECHER WELD, B A , BRITISH COLUMBIA,  
*Research Assistant in Research Division, Connaught  
 Laboratories,*  
 320 Bloor Street West.
- A ALBERT ERNEST ROBERTS WESTMAN, M A.,  
*Assistant in Electro-Chemistry, (U )*  
 215 Indian Road
- S ALEXANDER CURRIE WILSON, B A.Sc.,  
*Demonstrator in Engineering Drawing,*  
 283 Evelyn Avenue
- A FREDERICK B WILSON, PHM.B , M B ,  
*Class Assistant in Biology, (U )*  
 1656 St Clair Avenue West
- S WILLIAM STEWART WILSON, B A Sc ,  
*Demonstrator in Engineering Drawing,*  
 1 Humewood Court
- S GEORGE ROSS WORKMAN,  
*Demonstrator in Engineering Drawing,*  
 22 Helena Avenue
- R ARTHUR MARSHALL WYNNE, M A., QUEEN'S,  
*Research Assistant in Zymology,*  
 27 Lytton Boulevard
- A JOHN FRANCIS TODD YOUNG, PH D.,  
 R *Demonstrator in Physics, (U ) and Research Assist-  
 ant in Physics,*  
 174 Dowling Avenue.

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 171 Madison Avenue
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 Hart House, University of Toronto
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 224 Evelyn Avenue
- HORACE ALEXANDER GRAINGER, B A ,  
 25 Westmount Avenue
- JOSEPH A IRWIN, B.A.,  
 60 Grace Street
- WILLIAM JAMES LOUGHEED, M A ,  
 286 Runnymede Road

JOHN HUDSON MILLS, M A , QUEEN'S,	97 Tyndall Avenue
NORMAN LESLIE MURCH, B A ,	27 Northcliffe Boulevard
CHARLES EDWARD PHILLIPS, B.A ,	837 Bathurst Street
THOMAS M. PORTER,	64 Winchester Street
WALTER LAWRENCE CHRISTIE RICHARDSON, B A ,	83 Pine Crest Road
JOHN FAIR VAN EVERY, B A ,	13 Wells Street
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JAMES GEORGE WORKMAN, B A ,	Scarboro Bluffs



CONSTITUTION AND ADMINISTRATION OF THE  
UNIVERSITY

The constitution, powers and functions of the University are defined in "The University Act, 1906" (R.S.O., 1914, Chap. 279)

The management of the property, finances and academic business of the University is entrusted to the Board of Governors, the Senate, Convocation, the Faculty Councils, the Council of University College and the Caput. The functions of these various bodies are exercised subject to supervision and control by the Crown, as hereafter explained.

1 THE CROWN—The Lieutenant-Governor-in-Council has the power to appoint and to remove the Board of Governors (with the exception of the Chancellor and the President), to appoint and remove the Chairman of the Board, his assent is necessary before the Board can make any expenditure which impairs the endowment of the University or College, through the Provincial Auditor or someone else appointed by himself, he audits the accounts of the Board and he requires of them an Annual Report for submission to the Legislature.

2 THE BOARD OF GOVERNORS—The Board of Governors consists of: The Chancellor and the President, *ex-officio*, and eighteen persons appointed by the Lieutenant-Governor-in-Council, one of whom is named as Chairman of the Board. The appointed members hold office for six years, and one-third of the number retires every two years, but these members are eligible for re-election. The Board has power to appoint the President of the University, and to appoint or remove all of the officers and servants of the University or University College upon the nomination or recommendation of the President. The government, conduct, management and control of the University and University College and of the property, revenues, business and affairs thereof are vested in the Board (University Act, 1906, Section 37), but all expenditures of endowment must be authorised by the Lieutenant-Governor-in-Council. The Board makes by-laws, rules and regulations regarding the investment of the funds, the selling and leasing of University properties, the letting of contracts, the appointment and removal of the Bursar and his assistants, clerks and other officers and servants of the University, the rate of salaries to be paid to the staff and officers, the fees to be paid by students, the annual appropriations and the transaction of other business.

3 THE SENATE—The Senate consists of four classes of members. (1) Ex-officio members, (2) Faculty members, (3) Appointed members, and (4) Elected members. The ex-officio members are the Chancellor, the Chairman of the Board of Governors, the President of the University, the Principal of University College, the President or other head of each federated university or college, the Deans of the Faculties of Arts, Medicine, Applied Science and Engineering, Household Science, Education, Forestry



and Music, all past Chancellors, Vice-Chancellors and Presidents. Representation of the Faculties is made up as follows, The professors, not including the associate professors, of the Faculty of Arts of the University, five members of the Faculty of Medicine, five members of the Faculty of Applied Science and Engineering, two members of the Faculty of Education, three members from each of the four Arts Colleges, University College, Victoria University, Trinity College and St Michael's College. The appointed members consist of one representative appointed by each federated university, two by each federated college, one by the Law Society of Upper Canada and one by each federated institution, subject, however, in the latter case, to certain restrictions. The elected members number thirty-six, made up of twelve members representing the graduates in Arts who at graduation were enrolled in University College, five members each representing similar graduates in Victoria College and Trinity College, four representing the graduates in Medicine, two each representing the graduates in Applied Science and Engineering and in Agriculture, two representing the graduates in Law, and four representing the principals of collegiate institutes or high schools or assistants therein who are actually engaged in teaching in such institute or school. The graduates in Medicine and Law of Victoria University and Trinity College vote with the graduates of the University of Toronto in these same faculties.

The body thus composed is renewed once in four years, when all except the ex-officio members and the representatives of the Faculty of Arts of the University must retire, but are eligible for reappointment or reelection. The Chairman of the Senate is the President.

The Senate has the power to fill any vacancy which may occur among the elected members of the Senate and to return a final decision in any dispute which may arise in connection with the Senate elections. Among the powers and duties of the Senate are the following: To provide for the regulation and conduct of its proceedings, for the granting of degrees, including honorary degrees, and certificates of proficiency, except in Theology, for the establishment of exhibitions, scholarships and prizes, for the affiliation of any college established in Canada, for the dissolution or modification of the terms of affiliations, for the cancellation, recall and suspension of degrees, for the establishment of any faculty, department, chair or course of instruction in the University, or any department, chair or course of instruction in University College, except Theology, for the conduct of the election of members of the Senate, for the appointment of examiners and the conduct of all University examinations other than those in the faculties, for the representation on the Senate of any faculty which may hereafter be established, for the preparation and publication of the calendars, to consider and determine on the report of the faculties, the courses of study in these faculties, and all other courses of study for which no faculty is created; to consider and determine on the report of the various faculty councils, the appointment of examiners and the conduct and results of the examinations in these faculties, to consider such matters as may be

reported to it by the council of any faculty and to communicate its opinion or action thereon to the council, to hear and determine appeals from decisions of the faculty councils upon applications and memorials by students and others, to make rules and regulations for the management and conduct of the Library and to prescribe the duties of the Librarian, to make such changes in its own composition as may be deemed expedient, and to make such recommendations to the Board as may be deemed proper for promoting the interests of the University and of University College or for carrying out the objects and provisions of the Act

4 CONVOCATION —Convocation consists of the whole body of graduates of the University, in all faculties. Except indirectly through its elected representatives, no part of the management of the University is exercised by it as a whole. It elects the Chancellor, and, in divisions according to faculty, it elects members of Senate, as its representatives in Arts, Medicine, Law, Applied Science and Engineering and Agriculture. Any question relating to University affairs may be discussed by it, and a vote taken. The result of such discussion is communicated to the Senate, which must consider the representation made, and return to Convocation its conclusion thereon.

5 FACULTY COUNCILS —The seven faculties of Arts, Medicine, Applied Science and Engineering, Household Science, Education, Forestry and Music have each a Council, the President being Chairman, *ex-officio*, of the first and the Deans of the respective faculties of the other five. All professors, associate professors and assistant professors engaged in teaching students of any faculty have a seat and vote upon the council of the faculty whose students they teach, lecturers also, provided they are upon the permanent staff, have a seat but no vote in the council. Each council is autonomous, and has the settlement in the first instance of all applications and memorials from its students, the drawing up of a curriculum of studies, and the appointment of examiners and conduct of examinations. In the case of applications and memorials the settlement by the council is subject to an appeal to the Senate, in the case of courses of studies, appointment of examiners and conduct of examinations, the decisions of the councils are subject to the approval of and confirmation by the Senate.

The Council of the Faculty of Arts includes the Principal of University College, the President or other head of every federated university, the Dean of the Faculty of Arts, the teaching staff of University, Victoria, Trinity and St. Michael's College (except in the case of those whose appointments are temporary), and one professor in the Department of Religious Knowledge appointed by each federated university or college.

6 THE CAPUT —The Caput is a committee composed of the President, the Principal of University College, the Heads of the federated universities, the Heads of the federated colleges, and the Deans of the faculties of the University.

It has power to authorize teaching and lectures by others than the duly appointed members of the teaching staff, to exercise discipline over

students, where more than one college or one faculty is concerned, or where breaches of discipline occur outside the buildings or grounds appropriated to the several colleges and faculties

7 THE COUNCIL OF UNIVERSITY COLLEGE —This body is composed of the Principal and the professors, associate professors and assistant professors of the College. It has committed to it the direction and management of the College with full authority over and entire responsibility for the discipline (including the imposition of reasonable fines) of the undergraduates in relation to the lectures and other instruction of the professors, lecturers and other teachers of the College, and no lecturing or teaching of any kind may be carried on in the College by any other than the duly appointed professors or teachers without the authority of the Council.

8 FEDERATED INSTITUTIONS —The following institutions are federated with the University, viz, Victoria College, Trinity College, St. Michael's College, Knox College and Wycliffe College. The president or other head of each is, ex-officio, a member of the Senate and of the University Council. In addition, Knox and Wycliffe Colleges each appoint two other representatives on the Senate. Victoria and Trinity Colleges each appoint one member and the graduates of each elect five more representatives to represent each College. All regular students matriculated in the University who are enrolled in University College or Victoria College or Trinity College or St. Michael's College and who enter their names with the Registrar of the University are entitled to free instruction in Arts in the University. But this provision does not include exemption from laboratory fees, nor does it apply to graduate instruction. When a federated college, by arrangement with the University Council, teaches any part of the Arts course the Board of Governors may make a reduction in the fees of students taught in such College.

9 REVENUES OF THE UNIVERSITY —In addition to the income from the balance of the original endowment and additions made to it from time to time, the Legislature grants to the University, annually, the sum of \$500,000 from the revenues of the Province. In addition, the annual deficit upon maintenance account is borne by the Province.

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MATRICULATION

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## MATRICULATION

### SUBJECTS

A candidate for Pass Matriculation must write upon the examinations conducted by the Department of Education of Ontario in the following subjects of the Middle School

LATIN (Authors, one paper, Composition, one paper)

ENGLISH (Literature, one paper, Composition, one paper)

HISTORY (British, one paper, Ancient, one paper)

MATHEMATICS (Algebra, one paper, Geometry, one paper)

Any two of

GREEK (Authors, one paper, Composition, one paper)

FRENCH (Authors, one paper, Composition, one paper)

GERMAN (Authors, one paper, Composition, one paper)

SPANISH (Authors, one paper, Composition, one paper) *or*

ITALIAN (Authors, one paper, Composition, one paper)

EXPERIMENTAL SCIENCE (Physics, one paper, Chemistry, one paper) *or*

AGRICULTURE (Part I, one paper, Part II, one paper)

In certain cases foreign students may present themselves for examination in their language instead of Greek or French or German or Spanish or Italian when the language and the curriculum in that language have been approved by the Senate. The examination in an approved language consists of two years, similar in character to those in English.

A candidate for Honour Matriculation must write upon the examinations conducted by the Department of Education of Ontario in one or more of the following subjects of the Upper School

GREEK (Authors, one paper, Composition, one paper)

LATIN (Authors, one paper, Composition, one paper)

ENGLISH (Literature, one paper, Composition, one paper)

FRENCH (Authors, one paper, Composition, one paper)

GERMAN (Authors, one paper, Composition, one paper)

SPANISH (Authors, one paper, Composition, one paper) *or*

ITALIAN (Authors, one paper, Composition, one paper)

HISTORY (one paper)

MATHEMATICS (Algebra, one paper, Geometry, one paper, Trigonometry, one paper, \*Problems, one paper)

PHYSICS (one paper)

CHEMISTRY (one paper)

BIOLOGY (Botany, one paper, Zoology, one paper) .

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\*For certain Scholarship candidates only, see pages 18 and 21

These examinations, for both Pass and Honour Matriculation, are conducted by the Department at various centres throughout the Province of Ontario in June of each year

### STANDARDS

A candidate for Pass Matriculation will be allowed to write on one or more papers at a time in any order, and on obtaining at least fifty per cent of the marks assigned to any paper will be given credit for having passed in such paper and will receive a certificate of such standing

A candidate for Honour Matriculation will be allowed to write on one or more papers at a time in any order

In order to secure First Class Honours in a subject a candidate must obtain at one examination at least seventy-five per cent of the marks assigned to that subject and at least fifty per cent in each paper of that subject.

In order to secure Second Class Honours in a subject a candidate must obtain at one examination at least sixty-six per cent of the marks assigned to that subject and at least fifty per cent in each paper of that subject

In order to secure Third Class Honours in a subject a candidate must obtain at one examination at least sixty per cent of the marks assigned to that subject and at least fifty per cent in each paper of that subject

A candidate who fails to obtain First, Second or Third Class Honours in a subject under the above regulations, may secure credit for the subject by obtaining at least fifty per cent on each paper of the subject, not necessarily at one examination

Such credit in a subject will be accepted by the University as covering the Honour Matriculation requirement with respect to that subject for admission to any faculty

Such credit in a subject will also be accepted by the University as entitling the candidate, if registered in the Faculty of Arts, to exemption from the Pass work of the First Year in that subject, wherever the subject is included in the First Year of the Pass Course, but such exemption cannot be claimed in more than three subjects by a student registering in the First Year of the Pass Course

### FACULTY OF ARTS

A candidate for admission to the First Year in the Faculty of Arts must produce satisfactory certificates of good character and of having completed the sixteenth year of his age on or before the first of October of the year in which he proposes to register

### ADMISSION TO THE PASS COURSE

A candidate for admission to the First Year of the Pass Course must present certificates covering *complete* Pass Matriculation

A candidate for admission who presents, in addition to complete Pass Matriculation, certificates giving him credit at Honour Matriculation

in all or all but one of the subjects of the First Year of the Pass Course may be admitted to the Second Year of that Course. The prescribed fee for such admission to the Second Year is fifteen dollars.

#### ADMISSION TO AN HONOUR COURSE

A candidate for admission to the First Year of an Honour Course must present, in addition to complete Pass Matriculation, certificates giving him credit at Honour Matriculation in the subjects prescribed below for the Honour Course which he wishes to enter.

**NOTE.** The term "additional subject" includes any one of English, History, Greek, French, German, Italian, Spanish, Trigonometry, Physics, Chemistry, Biology.

**CLASSICS**—Greek, Latin, Mathematics (Algebra and Geometry), together with two additional subjects, one of which should be French or German.

**GREEK AND HEBREW**—Greek, Latin, Mathematics (Algebra and Geometry), one of English, French, German, together with an additional subject.

**FRENCH GREEK AND LATIN**—Latin, Mathematics (Algebra and Geometry), two of Greek, English, French, together with an additional subject.

**MODERN LANGUAGES**—Latin, French, Mathematics (Algebra and Geometry), one of German, Italian, Spanish, together with an additional subject.

**ENGLISH AND HISTORY**—Latin, Mathematics (Algebra and Geometry), two of Greek, English, French, German, together with an additional subject.

**\*MODERN HISTORY** { Latin, Mathematics (Algebra and Geometry),  
History, French or German, together with an  
additional subject.

**\*POLITICAL SCIENCE** {

**\*PHILOSOPHY**—Latin, English, Mathematics (Algebra and Geometry), one of History, Greek, French, German, Physics, together with an additional subject.

**PHILOSOPHY (ENGLISH OR HISTORY OPTION)**—Latin, Mathematics (Algebra and Geometry), one of History, English, Physics, one of Greek, French, German, together with an additional subject.

**PSYCHOLOGY**—Latin, Mathematics (Algebra and Geometry, Trigonometry), French or German, and one of Physics, Biology, Chemistry.

**MATHEMATICS** {

**MATHEMATICS AND PHYSICS** { Latin, Mathematics (Algebra and Geometry, Trigonometry), Physics, and  
French or German.

\*A student may qualify for admission to the Second Year of this course by obtaining complete standing in the First Year of the Pass Course with an average of sixty-six per cent. in at least four subjects.

PHYSICS	}	Latin, Mathematics (Algebra and Geometry, Trigonometry), French or German, and one of Physics, Biology, Chemistry
BIOLOGY		
PHYSIOLOGY AND BIOCHEMISTRY		
BIOLOGICAL AND MEDICAL SCIENCES		
CHEMISTRY AND MINERALOGY		
CHEMISTRY		
GEOLOGY AND MINERALOGY		
SCIENCE (GENERAL)		
HOUSEHOLD SCIENCE		
HOUSEHOLD ECONOMICS—Latin, Mathematics (Algebra and Geometry), two of English, French or German, Physics, Biology, Chemistry, together with an additional subject, the candidate is recommended to take French or German and a science		

#### ADMISSION TO COMMERCE AND FINANCE

A candidate for admission to the First Year of the Course in Commerce and Finance must present certificates giving him credit in the following subjects of Pass and Honour Matriculation

#### PASS MATRICULATION

ENGLISH (Literature and Composition)  
 HISTORY (British and Ancient)  
 MATHEMATICS (Algebra and Geometry)  
 Three of  
     GREEK (Authors and Composition)  
     LATIN (Authors and Composition)  
     FRENCH (Authors and Composition)  
     GERMAN (Authors and Composition)  
     SPANISH (Authors and Composition) *or*  
     ITALIAN (Authors and Composition)  
     EXPERIMENTAL SCIENCE (Physics and Chemistry) *or*  
     AGRICULTURE (Parts I and II)

#### HONOUR MATRICULATION

ENGLISH (Literature and Composition)  
 MATHEMATICS (Algebra, Geometry and Trigonometry)  
 Two of  
     LATIN (Authors and Composition)  
     GERMAN (Authors and Composition)  
     FRENCH (Authors and Composition)  
     SPANISH (Authors and Composition) *or*  
     ITALIAN (Authors and Composition)  
     PHYSICS *or*  
     CHEMISTRY *or*  
     BIOLOGY (Botany and Zoology)



A student who submits a Part I Commercial Specialist's Certificate may substitute the same for Ancient History and a language of Pass Matriculation and for the Geometry and Trigonometry of Honour Matriculation

### FACULTY OF MEDICINE

A candidate for admission to the First Year in the Faculty of Medicine must produce satisfactory certificates of good character and of having completed the seventeenth year of his age on or before the first of October of the year in which he proposes to register, only under exceptional circumstances will a candidate of thirty years or more be admitted

He must also present certificates giving him *full* credit in the following subjects of Pass and Honour Matriculation

#### PASS MATRICULATION

LATIN (Authors and Composition)

ENGLISH (Literature and Composition)

HISTORY (British and Ancient)

MATHEMATICS (Algebra and Geometry)

EXPERIMENTAL SCIENCE (Physics and Chemistry)

Any one of

GREEK (Authors and Composition)

FRENCH (Authors and Composition)

GERMAN (Authors and Composition)

SPANISH (Authors and Composition)

ITALIAN (Authors and Composition)

#### HONOUR MATRICULATION

ENGLISH (Literature and Composition)

MATHEMATICS (Algebra, Geometry and Trigonometry)

One of

LATIN (Authors and Composition)

GREEK (Authors and Composition)

FRENCH (Authors and Composition)

GERMAN (Authors and Composition)

**NOTE** Physics or Chemistry or Biology of Honour Matriculation may be substituted for Trigonometry

A student who has fully completed the First Year in the Faculty of Arts of the University of Toronto, will be admitted to the First Year in the Faculty of Medicine, provided he has at least Pass Matriculation standing in Experimental Science

Each candidate for admission to the First Year must submit his application for admission together with his certificates, to the Registrar of the University, not later than September 1st

## FACULTY OF APPLIED SCIENCE AND ENGINEERING

A candidate for admission to the First Year in the Faculty of Applied Science and Engineering must produce satisfactory certificates of good character and of having completed the seventeenth year of his age on or before the first of October of the year in which he proposes to register

He must also present certificates giving him credit in the following subjects of Pass and Honour Matriculation

## PASS MATRICULATION

ENGLISH (Literature and Composition)

HISTORY (British and Ancient)

MATHEMATICS (Algebra and Geometry)

Any three of

LATIN (Authors and Composition)

GREEK (Authors and Composition)

FRENCH (Authors and Composition)

GERMAN (Authors and Composition)

SPANISH (Authors and Composition) *or*

ITALIAN (Authors and Composition)

EXPERIMENTAL SCIENCE (Physics and Chemistry) *or*

AGRICULTURE (Parts I and II)

## HONOUR MATRICULATION

ENGLISH (Literature and Composition)

MATHEMATICS (Algebra, Geometry and Trigonometry)

One of

LATIN (Authors and Composition)

GREEK (Authors and Composition)

FRENCH (Authors and Composition)

GERMAN (Authors and Composition)

SPANISH (Authors and Composition) *or*

ITALIAN (Authors and Composition)

In selecting the options it is recommended that students take French, German and Experimental Science. In the Department of Architecture, French is required, in the Departments of Chemical Engineering and Mechanical Engineering it is desirable that students take German, in the Department of Metallurgical Engineering, Spanish and Experimental Science are recommended

## FACULTY OF FORESTRY

A candidate for admission to the First Year in the Faculty of Forestry must produce satisfactory certificates of good character and of having completed the seventeenth year of his age on or before the first of October of the year in which he proposes to register

He must also present certificates giving him credit in the following subjects of Pass and Honour Matriculation

#### PASS MATRICULATION

ENGLISH (Literature and Composition)

HISTORY (British and Ancient)

MATHEMATICS (Algebra and Geometry)

Any three of

LATIN (Authors and Composition)

GREEK (Authors and Composition)

FRENCH (Authors and Composition)

GERMAN (Authors and Composition)

SPANISH (Authors and Composition) *or*

ITALIAN (Authors and Composition)

EXPERIMENTAL SCIENCE (Physics and Chemistry) *or*

AGRICULTURE (Parts I and II)

#### HONOUR MATRICULATION

ENGLISH (Literature and Composition)

MATHEMATICS (Algebra, Geometry and Trigonometry)

Any one of

LATIN (Authors and Composition)

FRENCH (Authors and Composition)

GERMAN (Authors and Composition)

In selecting the options it is recommended that students take French *or* German of Honour Matriculation

#### FACULTY OF MUSIC

The subjects for Matriculation in Music are

ENGLISH (Literature and Composition)

Any two of

LATIN (Authors and Composition)

GREEK (Authors and Composition)

FRENCH (Authors and Composition)

GERMAN (Authors and Composition)

SPANISH (Authors and Composition) *or*

ITALIAN (Authors and Composition)

A candidate for the degree of Bachelor of Music must complete his Matriculation prior to admission to the examination of the final year

The pass standard is the same as that for Pass Matriculation

For admission to the Faculty of Music in 1926 a candidate will be required to present certificates giving him credit in the following subjects of Pass Matriculation

LATIN (Authors and Composition)  
 ENGLISH (Literature and Composition)  
 HISTORY (British and Ancient)  
 MATHEMATICS (Algebra and Geometry)

Any two of

GREEK (Authors and Composition)  
 FRENCH (Authors and Composition)  
 GERMAN (Authors and Composition)  
 SPANISH (Authors and Composition) *or*  
 ITALIAN (Authors and Composition)  
 EXPERIMENTAL SCIENCE (Physics and Chemistry) *or*  
 AGRICULTURE (Parts I and II)

### DEPARTMENT OF DENTISTRY

A candidate for admission to the First Year in the Department of Dentistry (Royal College of Dental Surgeons) must produce satisfactory certificates of good character and of having completed the sixteenth year of his age on or before the first of October of the year in which he proposes to register

He must also present certificates giving him *full credit* in the following subjects of Pass Matriculation

LATIN (Authors and Composition)  
 ENGLISH (Literature and Composition)  
 HISTORY (British and Ancient)  
 MATHEMATICS (Algebra and Geometry)  
 EXPERIMENTAL SCIENCE (Physics and Chemistry)

Any one of

GREEK (Authors and Composition)  
 FRENCH (Authors and Composition)  
 GERMAN (Authors and Composition)  
 SPANISH (Authors and Composition) *or*  
 ITALIAN (Authors and Composition)

### SPECIAL MATRICULATION CONDITIONS

The new regulations outlined on page 6 by which any candidate may receive credit in one or more papers at an examination have rendered unnecessary the special regulations for the industrial candidate. Consequently such candidate will *no longer* be required to send his statement of marks, together with a certificate of employment to the Secretary of the University Matriculation Board, in order to secure credit for the papers in which he has passed

### ANNUAL EXAMINATION

The examination for Pass and Honour Matriculation is held annually in June at centres in Ontario, and, if application is made to the

Senate, the examination may, with the co-operation of the Department of Education, be held at centres outside Ontario

Applications must be sent not later than May 15th, to the local Public School Inspector, or in the case of candidates intending to write at the University, to the Registrar

Scholarship candidates must also send a special application by the same date to the Registrar, according to a form to be obtained from him

The prescribed fee will be paid to the presiding officer by the candidate, when he presents himself for examination

The Junior Matriculation examination will be held in June at such centres outside Ontario as may from time to time be authorized by the Senate. Applications for the establishment of such local centres must be made to the Registrar not later than April 15th, in each year. Applications from candidates for this examination must be sent to the Registrar not later than May 15th

The presiding examiner's fee, together with any other necessary expenses in connection with such an examination, must be met by the candidates at the centre, or by the authorities of the School or College on whose application it is held

### EQUIVALENT EXAMINATIONS

A person who has passed the Matriculation examination of another University may be admitted *ad eundem statum* on such conditions as the Senate, on application, may prescribe

The local examinations conducted by the University of Oxford and the University of Cambridge may be accepted *pro tanto*

Certificates of having passed the subjects common to the Matriculation and other examination of any of the following examinations will be accepted *pro tanto*, provided always that the standards of these certificate as to subjects and percentages meet the requirements of this University

#### PROVINCE OF ONTARIO

The Middle School or Upper School examinations or examinations of the same standard under other names

#### PROVINCE OF QUEBEC

The University School Leaving Certificate examination

The Intermediate School Diploma examination

#### PROVINCE OF NEW BRUNSWICK

The examinations for Grammar School, or Superior or First Class Licences

#### PROVINCE OF NOVA SCOTIA

The Grade XI and Grade XII examinations

## PROVINCE OF MANITOBA

The Grade XI (Matriculation) and Grade XII examinations

## PROVINCE OF BRITISH COLUMBIA

The Junior and Senior Matriculation examinations

## PROVINCE OF PRINCE EDWARD ISLAND

The First Class Teachers' License examination

## PROVINCE OF ALBERTA

The Grade XI (Junior Matriculation) and Grade XII examinations

## PROVINCE OF SASKATCHEWAN

The First and Second Class Teachers' examinations.

The Senior and Junior Matriculation examinations

## NEWFOUNDLAND

Associate in Arts examinations

Candidates whose certificates do not cover all the subjects may complete matriculation by passing in the remaining subjects as prescribed by the University, or by passing in the subjects of similar standard as prescribed by the Education Department of the Province by which the certificate was issued

The Senate will consider applications for the recognition of certificates other than those mentioned, as occasion may require

## FEES

The Fees payable are as follows —

For registration of certificates for other than University purposes	\$5 00
For registration of certificates other than those of Ontario, which exempt the applicant from the full Matriculation examination	5 00
For admission <i>ad eundem statum</i>	5 00

## MATRICULATION SCHOLARSHIPS

All Matriculation Scholarships offered by the University of Toronto are tenable only by students registered in the Faculty of Arts with the exception of the following

- 1 The Robert Bruce Bursary and Scholarship, tenable by students registered in the Faculty of Arts or in the Faculty of Medicine,
- 2 The Ontario Hockey Association War Memorial Scholarship, tenable by a student in any faculty

Where there is no letter prefixed the scholarship is open to all competitors and is tenable in any one of the Colleges. In all other cases, the letter C indicates University College, the letter V, Victoria College, the letter T, Trinity College, and the letter M, St Michael's College, the student to whom one of these scholarships is awarded is required to enroll in each year of his course in the College to which the scholarship belongs

## PASS MATRICULATION SCHOLARSHIPS

Two Scholarships, known as "The First and Second Gibson Pass Matriculation Scholarships", of the value of \$120 and \$100 respectively with free tuition for one year, have been endowed by Sir John M. Gibson, of Hamilton, a graduate in Arts of 1863

They will be awarded subject to the following conditions

- 1 All candidates for these Scholarships must have been bona fide students of the Hamilton Collegiate Institute for at least the two years immediately preceding the award

- 2 Each candidate must send a special application not later than May 15th to the Registrar of the University according to a form to be obtained from him, in this form he must state in writing that it is his intention to proceed to a degree in Arts in one of the Colleges of the University of Toronto

- 3 The Scholarships shall be awarded annually upon the results of the June Pass Matriculation Examinations conducted by the Department of Education of Ontario in the year of the award and in the year immediately preceding the award. The subjects and standards shall be those prescribed for Pass Matriculation in the Faculty of Arts

- 4 In each of these two years candidates must present themselves for examination and obtain credit in the subjects for which they have been prepared in accordance with the arrangement of studies in the Hamilton Collegiate Institute

5 Successful candidates must register in the First Year of the Pass Course in the Faculty of Arts during the session immediately following the award, unless special permission is granted by the Senate of the University to postpone such registration

6 The cash payment of the Scholarships shall be made in the month of February in this session. Before payment can be made the scholar must present the prescribed certificate of attendance

7. In the event that a scholar decides to attend the Hamilton Collegiate Institute for the session following the award, in order to pursue the course of study for Honour Matriculation, the payment of the Scholarship shall be deferred until the scholar registers in the Faculty of Arts at the University

8 The holder of a Gibson Pass Matriculation Scholarship is not debarred from competing for an Honour Matriculation Scholarship in the University of Toronto

## HONOUR MATRICULATION SCHOLARSHIPS

### REGULATIONS REGARDING THE UNIVERSITY SCHOLARSHIPS

All Scholarships shall be awarded upon the marks obtained at the examination for Honour Matriculation conducted by the Department of Education of Ontario, and the marks in each subject shall be assigned on the basis of 100 for each paper in the subject as defined on page 5

Candidates for Matriculation Scholarships must send a special application not later than May 15th to the Registrar of the University, according to a form to be obtained from him

This application shall be accompanied by certificates showing that the candidate has complete Pass Matriculation standing

Each candidate shall at the Scholarship examination obtain credit in all the subjects of Honour Matriculation required for admission to the First Year of an Honour Course in the Faculty of Arts, as defined on pages 7 and 8

A candidate to whom a scholarship has been awarded at a Matriculation examination may not compete for a scholarship at a subsequent Matriculation examination. This regulation does not debar the holder of a Gibson Pass Matriculation Scholarship from competing for an Honour Matriculation Scholarship

With the exception of the Prince of Wales Scholarship, no one shall be entitled to hold more than one University scholarship, but any one who, but for this provision, would have been entitled to a second scholarship will be published in the lists

College Scholarships may be held with University Scholarships

Every candidate for an Honour Matriculation scholarship shall, on application for examination, sign a declaration to the effect that he intends to proceed to a degree in Arts in this University



A candidate competing for University scholarships must indicate at the time of application for examination the College in which he intends to enrol

No scholarship will be awarded save on condition that the candidate becomes a matriculated student in actual attendance in this University, through enrolment in one of the colleges

Free tuition awarded will be available on the following conditions —For the First Year on the award of the scholarship, for any year after the first on proof that the claimant has passed his examination for the preceding year with a first class in an honour course

In case in any year any scholarship be not taken, it will be allowable to award such scholarship, or some part thereof, to a candidate who has shown special excellence in the examination in some other group and has taken scholarship rank therein, but has failed to win a scholarship therein

These regulations are subject to change by the Senate

#### REGULATIONS RESPECTING UNIVERSITY COLLEGE SCHOLARSHIPS

Scholarships in University College are tenable with an Edward Blake Scholarship, always providing that the winner be in first class honours in Classics at Matriculation and becomes and continues to be a registered student in attendance upon lectures either in Classics or in English and History with the Classical option in University College In the event of no eligible candidate being forthcoming at Matriculation for these scholarships, the scholarships will be held over until the year following

#### REGULATIONS RESPECTING VICTORIA COLLEGE SCHOLARSHIPS

Scholarships in Victoria College are tenable with an Edward Blake Scholarship, always providing that the winner be in first class honours at Matriculation and becomes and continues to be a registered student in attendance upon lectures in Victoria College

#### REGULATIONS RESPECTING TRINITY COLLEGE SCHOLARSHIPS

The regulations governing University Scholarships are applicable to Trinity College Scholarships, *mutatis mutandis*, with the additional regulation that the holder is ordinarily required to reside in College, unless special permission to the contrary is given by the Executive Committee

As a Trinity College Scholarship is generally held in conjunction with a University Scholarship, the holder in such case enjoys (a) free tuition, (b) the cash value of the University Scholarship, (c) the cash value of the Trinity College Scholarship For example, if he holds the Wellington Scholarship in Classics and a First Edward Blake Scholarship in the same department, his University Scholarship entitles him to free tuition for four years, which is equivalent to \$160, and he receives in addition \$50 from the University, and \$120 from Trinity College, making a total value of \$330 A further advantage is that the winner is assured of accommodation in the Trinity College Residence (or in St Hilda's in the case of women), as Scholars are given precedence over all other applicants when rooms are being assigned

## PROFICIENCY SCHOLARSHIPS

Candidates for Proficiency Scholarships in any one of the following groups must either

(a) Obtain fifty per cent in each of the eleven papers prescribed in each Group, together with an average of seventy-five per cent, or

(b) Obtain First Class Honours in one of the four departments—Classics, Moderns, Mathematics, Science

In case a candidate fails to secure fifty per cent in a paper that does not form part of the Honour Matriculation requirements for admission to an Honour Course, he will not necessarily be disqualified from competing for a Proficiency Scholarship, but such mark will not be taken into consideration in the Scholarship award

## CLASSICS PROFICIENCY

GREEK, LATIN, ENGLISH, FRENCH, HISTORY, MATHEMATICS (Algebra and Geometry)

The First Edward Blake Scholarship, the gift of the late Hon Edward Blake, formerly Chancellor of this University, of the value of \$100, with free tuition for four years, of a total possible value of \$260

The Second Edward Blake Scholarship of the value of \$75, with free tuition for four years, of a total possible value of \$235

The Third Edward Blake Scholarship of the value of \$50, with free tuition for four years, of a total possible value of \$210

## MODERNS PROFICIENCY

LATIN, ENGLISH, FRENCH, GERMAN, HISTORY, MATHEMATICS (Algebra and Geometry)

The First Edward Blake Scholarship, the gift of the late Hon Edward Blake, formerly Chancellor of this University, of the value of \$100, with free tuition for four years, of a total possible value of \$260

The Second Edward Blake Scholarship of the value of \$75, with free tuition for four years, of a total possible value of \$235

The Third Edward Blake Scholarship of the value of \$50, with free tuition for four years, of a total possible value of \$210

## MATHEMATICS PROFICIENCY

LATIN, ENGLISH, FRENCH, MATHEMATICS (Algebra, Geometry, Trigonometry, Problems), PHYSICS

The First Edward Blake Scholarship, the gift of the late Hon Edward Blake, formerly Chancellor of this University, of the value of \$100, with free tuition for four years, of a total possible value of \$260

The Second Edward Blake Scholarship of the value of \$75, with free tuition for four years, of a total possible value of \$235

The Third Edward Blake Scholarship of the value of \$50, with free tuition for four years, of a total possible value of \$210

#### SCIENCE PROFICIENCY

LATIN, FRENCH, MATHEMATICS (Algebra, Geometry, Trigonometry),  
SCIENCE (Physics, Chemistry, Biology)

The First Edward Blake Scholarship, the gift of the late Hon Edward Blake, formerly Chancellor of this University, of the value of \$100, with free tuition for four years, of a total possible value of \$260

The Second Edward Blake Scholarship of the value of \$75, with free tuition for four years, of a total possible value of \$235

The Third Edward Blake Scholarship of the value of \$50, with free tuition for four years, of a total possible value of \$210

#### SPECIAL PROFICIENCY SCHOLARSHIPS

Candidates for these scholarships are required to obtain First Class Honours in at least one Department

The Prince of Wales Scholarship, the gift of the late King Edward VII, of the value of \$50, shall be awarded to the candidate standing highest in English and French who is also awarded one of the preceding scholarships

U The Gibson Scholarship, the gift of the Hon Sir John M Gibson, of the value of \$100, with free tuition for three years, of a total possible value of \$220 This scholarship shall be awarded to the candidate who, qualifying for one of the preceding scholarships and excluding the Prince of Wales Scholar, has the highest aggregate in the subjects of Latin, English, French, History, Algebra and Geometry

This scholarship is open for competition only to students who have stated their intention of enrolling in University College, and is not tenable with any other matriculation scholarship awarded by the University, except a Gibson Pass Matriculation Scholarship

V The Hamilton Fiske Biggar Scholarship of the value of \$100 with free tuition for three years, of a total possible value of \$220 This scholarship shall be awarded to the candidate who, qualifying for one of the preceding scholarships and excluding the Prince of Wales Scholar, has the highest aggregate in the subjects of Latin, English, French, History, Algebra and Geometry

T The Upper Canada College-Trinity Scholarship, the gift of Upper Canada College Old Boys, who are alumni of Trinity College, of the value of \$100

The successful candidate must obtain first class honours in at least one department. Pass papers rank at half the value of Honour papers. The sum of \$60 will be paid in equal terminal instalments in the first year, and \$40 in the second year.

- T The F. A. Bethune Scholarship, the gift of the trustees of the F. A. Bethune Memorial Fund, of the value of \$60.

This Scholarship will be awarded to the candidate from Trinity College School, Port Hope, who obtains the highest number of marks, being not less than two-thirds of the total, at the Honour Matriculation Examination, and becomes and continues a resident undergraduate of Trinity College, Toronto, for the whole of the year for which he holds the Scholarship.

- M The Silver Episcopal Jubilee Scholarship, the gift of the Toronto Subdivision of the Catholic Women's League of Canada, in honour of the Silver Jubilee of the Most Rev. Neil McNeil, Archbishop of Toronto, of the value of \$100.

This Scholarship open for competition only to women students residing in Toronto.

#### ENGLISH, HISTORY AND CLASSICS

- T The Bishop Strachan Scholarship, founded in memory of the first Bishop of Toronto, of the value of \$40 a year for two years.

#### ENGLISH, HISTORY, LATIN AND FRENCH

- T The Dickson Scholarship, the gift of the late William Dickson, Esq., of the value of \$60 a year for two years.

### SCHOLARSHIPS IN ONE DEPARTMENT

Candidates for these scholarships must obtain first class honours in their departments.

#### CLASSICS—GREEK AND LATIN

The First Edward Blake Scholarship, the gift of the late Hon. Edward Blake, formerly Chancellor of this University, of the value of \$90, with free tuition for four years, of a total possible value of \$250.

The Second Edward Blake Scholarship of the value of \$60, with free tuition for four years, of a total possible value of \$220.

The First Mary Mulock Scholarship, the gift of the late Mrs. Mulock, of the value of \$60, with free tuition for three years, of a total possible value of \$180.

The Second Mary Mulock Scholarship, the gift of the late Mrs. Mulock, of the value of \$60, with free tuition for two years, of a total possible value of \$140.

- C The McCaul Scholarship, the gift of G A H Fraser, M A , formerly Fellow in Classics 1889-91, Andrew Melville Stewart, M A , LL B , Honour graduate in Classics, 1891, and Principal Hutton, of the value of \$75, with free tuition for four years, of a total possible value of \$235
- V The Moses Henry Aikins Scholarship, the gift of the late Moses Henry Aikins, B A , 1855, M D , of the value of \$100, with free tuition for four years, of a total possible value of \$260
- V The Flavelle Scholarship, the gift of Sir J W Flavelle, Bart , LL D , of the value of \$60, with free tuition for three years, of a total possible value of \$180
- V The W E H Massey Scholarship, the gift of the late W E H Massey, Esq , of the value of \$50 with free tuition for two years, of a total possible value of \$130
- T The Wellington Scholarship, founded by the first Duke of Wellington, of the value of \$60 a year for two years

## GREEK

The George R R Cockburn Scholarship, the gift of the late Mary Cockburn Awarded to the successful candidate at the scholarship examination who ranks highest in First Class Honours in Greek

This scholarship is tenable with any other University scholarship

## MODERNS—ENGLISH, GERMAN, FRENCH

The First Edward Blake Scholarship, the gift of the late Hon Edward Blake, formerly Chancellor of this University, of the value of \$90, with free tuition for four years, of a total possible value of \$250

The Second Edward Blake Scholarship of the value of \$60, with free tuition for four years, of a total possible value of \$220

- V The Moses Henry Aikins Scholarship, the gift of the late Moses Henry Aikins, B A , 1855, M D , of the value of \$100, with free tuition for four years, of a total possible value of \$260
- T The Dickson Scholarship, the gift of the late William Dickson, Esq., of the value of \$60 a year for two years

## MATHEMATICS—ALGEBRA, GEOMETRY, TRIGONOMETRY, PROBLEMS

The First Edward Blake Scholarship, the gift of the late Hon Edward Blake, formerly Chancellor of this University, of the value of \$90, with free tuition for four years, of a total possible value of \$250

The Second Edward Blake Scholarship of the value of \$60, with free tuition for four years, of a total possible value of \$220 each

- V The Moses Henry Aikins Scholarship, the gift of the late Moses Henry Aikins, B A , 1855, M D , of the value of \$100, with free tuition for four years, of a total possible value of \$260
- T The Wellington Scholarship, founded by the first Duke of Wellington, of the value of \$60 a year for two years
- T The Professor William Jones Scholarship, founded in memory of the late Reverend William Jones, M A , D C L , by relatives and other personal friends. It is open only to students matriculating from Trinity College School, Port Hope

#### SCIENCE—PHYSICS, CHEMISTRY, BIOLOGY

The First Edward Blake Scholarship, the gift of the late Hon Edward Blake, formerly Chancellor of this University, of the value of \$90, with free tuition for four years, of a total possible value of \$250

The Second Edward Blake Scholarship of the value of \$60, with free tuition for four years, of a total possible value of \$220

- V The Moses Henry Aikins Scholarship, the gift of the late Moses Henry Aikins, B A , 1855, M D , of the value of \$100, with free tuition for four years, of a total possible value of \$260
- T The Burnside Scholarship, founded in memory of the late Dr Burnside, of the value of \$40 a year for two years

### SPECIAL SCHOLARSHIPS AND BURSARIES

#### THE JOHN MCCRAE SCHOLARSHIPS

Two Scholarships, each known as "The John McCrae Scholarship", and of the value of approximately \$275 per year for four years, have been founded in memory of the late Lieutenant-Colonel John McCrae, B A , M D , of Montreal, one time Fellow in Biology of the University of Toronto, physician, soldier, poet, who died in France in January, 1918

The purpose of the Scholarships is to assist youths of ability, promise and approved academic standing, who desire to acquire the education represented by an Arts degree, but whose circumstances are such as to make the fulfilment of that desire impracticable without assistance. It is, moreover, desired that the Scholarships should be used to stimulate such ambition among the pupils of the Guelph Collegiate Institute, John McCrae's home and boyhood school from which he matriculated and entered the University of Toronto. The award will, therefore, be limited to Matriculants into the University of Toronto from the Guelph Collegiate Institute, or failing eligible and acceptable candidates therefrom in any

year, from among other Canadian Matriculants. The award shall go to a male candidate if there be one eligible and acceptable—if not, the award may, in exceptional cases, be made to a female. A scholar may be chosen from matriculants of the year in which the award is made or the previous year. If the award is made to a matriculant of the previous year, and one year of the scholar's course for degree has already been passed, the award may be limited to the remaining three years of the course.

The selection of the scholars shall be made by a Committee composed of the President of the University, the Principal of Guelph Collegiate Institute, and a member or nominee of the family of the late John McCrae. If in any year, an acceptable candidate is not found, the award need not then be made, but may be postponed to the following year, but such postponement shall not affect the next succeeding Scholarship, which shall be offered in the year in which in due course it would otherwise have been available.

Every successful candidate shall, as a condition of the award, sign a declaration of intention to proceed to a degree in Arts in the University of Toronto, and must attend lectures for the academic year immediately following the award, unless permission is granted by the Senate upon the recommendation of the Faculty for the postponement of attendance for a year. The candidate shall also sign a promise to repay to the University any sums paid to him on account of the Scholarship, if from any cause not beyond his control he shall fail to complete the full course in Arts leading to a degree. If, during the currency of the Scholarship, the candidate shall fail to maintain a satisfactory standard of efficiency in scholarship and good conduct, the award may, as to further payments, be cancelled by the selecting body after consultation with the University authorities.

One of these Scholarships will be offered in 1925 and in every second year thereafter. Candidates are required to make a special application on a form to be obtained from the Registrar. One factor in determining the award will be the character of the work shown at the Scholarship Matriculation Examination conducted by the Department of Education of Ontario.

#### THE ONTARIO HOCKEY ASSOCIATION WAR MEMORIAL SCHOLARSHIP

The Ontario Hockey Association War Memorial Scholarship of the value of \$100.00, the gift of the Ontario Hockey Association, to be awarded annually at Matriculation to a male student who has served overseas with the Canadian Forces in the Great War of 1914-1918, or to a student who is the son or daughter of one who has so served.

This Scholarship will be offered for competition for the first time in 1925.

## THE WILLIAM HARDIE SCHOLARSHIP

The William Hardie Scholarship of the value of \$100, with free tuition for three years, of a total possible value of \$220, was founded in 1922 by friends in Ottawa and Perth in memory of William Hardie, B A, an ex-pupil and Classical Master (from 1905 until his death in 1920) of Ottawa Collegiate Institute

This Scholarship is to be awarded annually on the basis of the Scholarship Matriculation Examination of this University to the candidate of Ottawa Collegiate Institute who, having fulfilled all other conditions, ranks highest in First or Second Class Honours in any two of the following subjects—Latin, Greek, English \*

This Scholarship is not tenable with any other Honour Matriculation Scholarship awarded by the Senate of the University

The award shall be made by the Senate of the University

## THE ROBERT BRUCE BURSARY AND SCHOLARSHIP

The Robert Bruce Bursary, founded from the estate of the late Robert Bruce of Quebec, of the value of \$50, tenable for one year, shall be open to students in the Faculties of Arts and Medicine with complete matriculation who have displayed marked excellence at the Honour Matriculation examination, subject to the conditions set forth below

The Robert Bruce Scholarship, of the value of \$85, tenable for one year, shall be open to students in the Faculties of Arts and Medicine with complete matriculation who have displayed marked excellence at the Honour Matriculation examination, subject to the conditions set forth below

The Robert Bruce Bursary and Scholarship shall be open only to students (a) who are of Scottish extraction, (b) who have complete matriculation in this University as at the date of entrance, (c) who without some such assistance would be hampered entering upon a course of study in the University

A student, who already holds a scholarship of the value of at least \$100, exclusive of free tuition, cannot qualify for either the Scholarship or the Bursary

The Committee of Award shall consist of the President of the University, and the Deans of the Faculties of Arts, Medicine, and Applied Science and Engineering

Applications for the Bursary and the Scholarship should be made to the Registrar of the University

## THE MOSES HENRY AIKINS SCHOLARSHIPS

- V Ten scholarships (including the four mentioned above) each known as the Moses Henry Aikins Scholarship, and each of the value of \$100 with free tuition for four years, of a total possible value of \$200, have been founded by the bequest of the late Moses Henry Aikins, B A, 1855, M D, of Burnhamthorpe



In each year some of these scholarships will be available for award to candidates who have shown special excellence in the Matriculation Examinations and are deemed to be of scholarship rank, but who may not have qualified for scholarships in any of the recognized groups of subjects

#### THE LEONARD McLAUGHLIN SCHOLARSHIP

- T. This scholarship has been endowed by Mr and Mrs Michael McLaughlin, of Toronto, in memory of their only son Leonard, who was at the time of his death, December 10th, 1899, an undergraduate of Trinity College. As he was a pupil at Upper Canada College from 1890 to 1896, only pupils of that school are eligible for the scholarship. This award will be made by a board consisting of the Provost of Trinity College with the Principal and the Classical Master of Upper Canada College to such candidate as, without written examinations, shows evidence of possessing good scholarship in Classics, as well as manliness, a sense of honour, and a strong moral character. Failing a suitable candidate in Classics, the Board may at its discretion select one in Modern Languages, though it is not under any obligation to make a selection in any given year.

Successful candidates must pursue a course of study in Classics or Modern Languages to the satisfaction of the Board. In case of necessity, to be by it determined, the Board may allow a postponement of the time of beginning the course or an interruption of the same.

The scholarship is worth \$500, \$125 will be paid to successive holders at the end of each Term in the First and Second Years.

#### THE COOPER EXHIBITION

- T. These two exhibitions, founded by the Rev. C. W. Cooper, of the value of \$100 each, are open to any matriculated student of Trinity College not holding a scholarship, with a preference to the sons of clergymen. The exhibitioners are nominated by the Most Reverend the Lord Bishop of Toronto.

#### CORPORATION BURSARIES

- T. The Corporation has provided that five Bursaries of a value of \$50 per annum be open every year for a period not exceeding three years. Any student who shall have passed the Matriculation examination, and shall have satisfied the Executive Committee that he cannot without the aid thus afforded, avail himself of the advantage of a University education, will be eligible for a bursary, provided that he is not the holder of a scholarship or exhibition. *Ceteris paribus* the sons of clergymen will be preferred.

Scholarships, exhibitions and bursaries will be forfeited if the holder fails to keep a term, or to pass any examination at the regular time.

## DAUGHTERS OF THE EMPIRE BURSARY

The Imperial Order, Daughters of the Empire, has established a War Memorial Bursary in each province of the Dominion, of the value of \$300 a year for four years, to be awarded to the candidate in either the Junior or the Honour Matriculation examinations who, in the judgment of the Committee, best meets the purpose in view in the foundation of the Bursary. The candidate must be the son or daughter of a killed or totally disabled soldier, sailor or member of the Air Force. In case the holder of the Bursary for the Province of Ontario elects to study at the University of Toronto his fees will be remitted to the extent of \$25 a year provided the student has passed satisfactorily his examinations for the preceding year.

Information respecting the Ontario Bursary may be obtained from the Provincial Educational Secretary, I O D E, Y W C A Building, Main Street, Hamilton, Ontario, from whom forms of application may be secured.

## PRESCRIPTION OF COURSES

### PASS MATRICULATION

#### GREEK

Translation into English of passages from the prescribed texts, with questions thereon

Translation at sight of simple narrative passages similar to the Xenophon prescribed

Questions on Greek accidence and on the common rules of Greek syntax to test the candidate's accuracy and comprehension in such matters as are needful for the intelligent reading of his texts.

The following are the prescribed texts —

1925 Xenophon, Philpotts and Jerram, *Easy Selections from Xenophon*, chaps 3, 4, 5, Rennie's *Selections from Homer* (Edward Arnold, London), *Iliad*, I, 148-192, 223-246 and 345-363, III, 139-190, VI, 369-502, XXII, 273-363

1926 Xenophon, Philpotts and Jerram, *Easy Selections from Xenophon*, chaps 3, 4, 5, Rennie's *Selections from Homer* (Edward Arnold, London), *Odyssey*, I, 119-177, V, 291-327, VI, 71-126, IX, 437-472, XII, 165-200, XIV, 1-54, XVII, 290-327, XXII, 1-41

1927 The same as 1925

Two papers will be set (1) Prescribed texts, (2) translation at sight, accidence and syntax

#### LATIN

Translation at sight of passages of average difficulty from Cæsar, upon which special stress will be laid

Translation, with questions, from a prescribed portion of Virgil's *Æneid*

Examination (not to include translation) upon a short prescribed portion of Cæsar, to test the candidate's knowledge of Latin Syntax

Questions on Latin accidence.

Translation into Latin of English sentences involving a knowledge of the vocabulary and constructions found in the Ontario High School Latin Book, pages 1-420, omitting all the sections after 500 which are printed in small type, and also the following 530, 554, 563 (c), 630, 631, 632, 635, 637, 665, 672, 674

The following are the prescribed texts —

1925 Caesar, *De Bello Gallico*, Book V, chaps 1-23, Selections from Virgil (W J Gage & Co) Sections 1, 2, 3, 4, 15, 16

1926 Caesar, *De Bello Gallico*, Book IV, chaps 20-38, Selections from Virgil (W J Gage & Co) Sections 1, 6, 8, 9, 11, 13, 14, 15

1927 Caesar, *De Bello Gallico*, Book V, chaps 1-23, Selections from Virgil (W J Gage & Co) Sections 1, 5, 7, 10, 12, 17

Two papers will be set (1) Latin Authors, including Virgil, Caesar and Sight Translation, (2) Latin Composition and Grammar

## ENGLISH

**COMPOSITION** An essay on one of several themes set by the examiners. In order to pass in this subject, legible writing, correct spelling and punctuation, and idiomatic and grammatical construction of sentences are indispensable. The candidate should also give attention to the structure of the whole essay, the effective ordering of the thought, and the accurate employment of a good English vocabulary. About two pages of foolscap is suggested as the proper length for the essay, but quality, not quantity, will be mainly regarded.

One examination paper

**LITERATURE** Such questions only will be set as may serve to test the candidate's familiarity with, and intelligent and appreciative comprehension of, the prescribed texts. The candidate will be expected to have memorized the passages prescribed below. In addition to the questions on the prescribed selections, others will be set on a "sight passage" to test the candidate's ability to interpret literature for himself.

The candidate shall produce satisfactory proof, by the certificate of the principal of the school from which he comes or otherwise, that he has read carefully, during the preceding year, at least four suitable works in English literature (both prose and poetry) in addition to those prescribed below for examination.

One examination paper

The following are the prescribed texts —

1925 Intensive work—Shakespeare, *The Merchant of Venice*, extensive work—Part I of Collection of Shorter Poems

1926 Intensive work—Shakespeare, *Julius Caesar*, extensive work—Part II of Collection of Shorter Poems

1927 Intensive work—Shakespeare, *Macbeth*, extensive work—Part III of Collection of Shorter Poems

1928 Intensive work—Shakespeare *Henry V*, extensive work—Part IV of Collection of Shorter Poems

## PASSAGES FOR MEMORIZATION

1925

Shakespeare, *The Merchant of Venice*.

- Act I, Sc 1, ll 79- 90 Let me play their brothers fools  
 Act II, Sc 9, ll 38- 49 Who chooseth me to be new varnished  
 Act IV, Sc 1, ll 184-205 The quality of mercy the deeds of mercy  
 Act V, Sc 1, ll 54- 65 How sweet the moonlight cannot hear it  
 Act V, Sc 1, ll 102-108 The crow doth sing true proportion

Collection of Shorter Poems—Part I Shakespeare, Sonnet xxix, Milton, On his Blindness, Wordsworth, London, 1802, Blanco White, To Night, Tennyson, "Of old sat Freedom", "Home they brought", Rossetti, Sudden Light, Hardy, The Division, Davies, The Green Tent, Campbell, How One Winter Came in the Lake Region

1926

Shakespeare, *Julius Caesar*

- Act I, Sc 1, ll 40-60 O you hard hearts on this ingratitude  
 Act III, Sc 1, ll 148-163 O mighty Caesar spirits of this age  
 Act III, Sc 2, ll 173-196 If you have tears flourished over us  
 Act IV, Sc 2, ll 19- 27 Thou hast described in the trial  
 Act V, Sc 5, ll 68- 75 This was the noblest was a man

Collection of Shorter Poems—Part II Byron, "There was a sound of revelry" (ll 1-45), Tennyson, "You ask me why", St Agnes' Eve, Hardy, "When I set out for Lyonesse", Lang, Good-bye, Yeats, The Lake Isle of Innisfree, De la Mare, The Scribe, Carman, An April Morning

1927

Shakespeare, *Macbeth*

- Act I, Sc 5, ll 16- 31 Glamis thou art crowned withal  
 Act I, Sc 7, ll 1- 28 If it were done on the other  
 Act II, Sc 1, ll 33- 64 Is this a dagger to hell  
 Act III, Sc 2, ll 4- 26 Nought's had him further  
 Act III, Sc 2, ll 45- 56 Be innocent go with me  
 Act V, Sc 3, ll 22- 28 I have lived dare not  
 Act V, Sc 3, ll 39- 45 Cure her the heart  
 Act V, Sc 5, ll 16- 28 The Queen signifying nothing

Collection of Shorter Poems—Part III "It is not to be thought of", "A weary lot is thine", Pibroch of Donald Dhu, "The splendour falls", Far-Far-Away, The Passing of Spring.

1928

Shakespeare, Henry V

Act I, Sc 1, ll 1- 18 O for a muse      imaginary forces work  
 Act III, Sc 1, ll 1- 34 Once more into the breach      and St George  
 Act IV, Sc 3, ll 40-87 This day is called      St Crispian's Day

Collection of Shorter Poems—Part IV The Tiger, Song ("The sun upon the lake"), "You ask me why", St Agnes' Eve, When I set out for Lyonesse, The Lake Isle of Innisfree, The Scribe, "When it is finished"

## \*FRENCH

The candidate's knowledge of French will be tested by (1) simple questions on grammar, (2) the translation of simple passages from English into French, (3) translation at sight of easy passages from modern French, and (4) an examination on the following texts —

The texts contained in the New High School French Reader.

1925 George Sand, La Petite Fadette (Oxford University Press), Labiche, La Grammaire

1926 Daudet, La Belle Nivernaise (edition to be selected), Moinaux, Les deux Sourds

1927 Daudet, Le Petit Chose à l'école (Blackie Edition, Copp Clark Co.), Labiche, Les Petits Oiseaux

Two papers will be set (1) Prescribed texts and translation at sight, questions on grammar, (2) the translation of English into French.

## \*GERMAN

The candidate's knowledge of German will be tested by (1) simple questions on grammar, (2) the translation of simple passages from English into German, (3) translation at sight of easy passages from modern German, and (4) an examination on the following texts.—

The texts contained in the High School German Reader with the exception of Von Fallersleben, Deutschland über Alles

1925 Chamisso, Peter Schlemihl, Benedix, Der Prozess

1926 Gerstaecker, Germelshausen, Seidel, Der Unsichtbare (Blackie), Elz, Er ist nicht eifersüchtig

1927 Storm, Immensee, Fulda, Unter vier Augen

1928 Arnold, Fritz auf Ferien, Ebner-Eschenbach, Krumbambuli, Benedix, Der Prozess

Two papers will be set (1) Prescribed texts and translation at sight, questions on grammar, (2) the translation of English into German

\*When the edition is not specified, any *unabridged* edition may be used.

## SPANISH

The candidate's knowledge of Spanish will be tested by (1) questions on grammar, (2) the translation of sentences and connected narrative from English into Spanish, (3) composition in Spanish, (4) translation at sight from Spanish, (5) an examination on the following text —

1925, 1926, 1927 Benavente, *El Principe que todo lo aprendió en los libros* (World Book Co.), Hills and Cano, *Cuentos y leyendas* (Heath & Co.)

1928 Hills and Cano, *Cuentos y leyendas* (Heath & Co.), Selgas, *La Mariposa blanca* (Heath & Co.)

Two papers will be set (1) Prescribed text and translation at sight, questions on grammar, (2) the translation of English into Spanish and composition

## ITALIAN

The candidate's knowledge of Italian will be tested by (1) questions on grammar, (2) the translation of sentences and connected narrative from English into Italian, (3) translation at sight from Italian, (4) an examination on the following text —

1925, 1926, 1927 Bowen, *Italian Reader* (Heath & Co.), Goldoni, *La Locandiera* (Heath & Co.)

1928 Bowen, *Italian Reader* (Heath & Co.), Goldoni, *Il vero amico* (Heath & Co.)

Two papers will be set (1) Prescribed text and translation at sight, (2) questions on grammar and translation of sentences illustrating the grammar

## HISTORY

**BRITISH HISTORY** — Great Britain from 1688 to 1920 The geography relating to the history prescribed One examination paper

**NOTE** — The following sections of the course given below are obligatory, viz., 1, 4, 5, 6, and 15 Candidates must also take one of the options in each of (a) and (b) below

(a) Section 2 and section 3, or section 13 and section 14

(b) Sections 7, 8 and 9, or sections 10, 11, and 12

1 Political development 1688 to date

The Bill of Rights, the significance of the Revolution of 1688

Origin and development of parties and party government

Biographical sketches of the great Prime Ministers Walpole, Pitt, Jr. Grey, Russell, Melbourne, Peel, Palmerston, Gladstone, Disraeli, Salisbury, Balfour, Asquith, Lloyd George

Extension of the franchise The Reform Bills of 1832, 1867, 1884, 1918, etc

Restriction of the powers of the House of Lords

- 2 The American Revolution
- 3 The French Revolution, the war with France, 1793-1802, the struggle with Napoleon
- 4 The Industrial Revolution
- 5 The development of the British Empire in territory and in government
- 6 The social life of the people
  - (a) Phases agriculture, commerce, industry, transportation, class distinctions, amusements
  - (b) Legislation, e g, Factory Acts
- 7 Literature
- 8 Education in the 19th and 20th centuries
- 9 Religion
- 10 Ireland
- 11 External relations, including brief study of nations concerned
- 12 The British Navy The place of sea-power in the development and maintenance of the British Empire
- 13 The Great War, especially the part played by the British Empire
- 14 The League of Nations
- 15 Civics

Government, with special emphasis on provincial, federal, and imperial government

A study of the following aspects of the production and distribution of wealth

- (a) The dependence of the citizen upon others for the wealth he uses
- (b) Co-operation and division of labour
- (c) The effects of industrial development upon community life
- (d) The distribution of wealth in wages, salaries, profits, dividends, interest, and rent
- (e) Saving
- (f) What the government does to regulate the production and distribution of wealth
- (g) Voluntary organizations aiding or regulating industry

#### BOOKS OF REFERENCE

The following books will be found useful for supplementary reading on the topics of the course, and should be placed in every High School library  
 Mowat, A new History of Great Britain, Parts II and II, Oxford Press,  
 Gardiner, A Student's History of England, Longmans (or Part III, which deals with the period 1689-1919), McCarthy, England in the Nineteenth Century, 2 vols, Putnam, Trevelyan, British History in the Nineteenth Century, Longmans, Bell's English History Source Books, Vols VII-XI, 1714-1887, G Bell & Sons, Kendall, Source Book of English History, Macmillan, Piers Plowman Social and Economic Histories, Vols V, VI, VII, George Philip & Son, London, Cheney, Industrial and Social History



of England, Macmillan, Hamilton, How the Fight was Won, Ontario Department of Education, Everyman's Literary and Historical Atlas of Europe, Dent, Philip's Junior Historical Atlas, George Philip & Son

**ANCIENT HISTORY**—General outlines of the History of Greece to the death of Alexander and of the history of Rome to the death of Augustus, with a brief outline of the art, literature, philosophy, and social life of the Greeks and Romans The geography relating to the history prescribed One examination paper

**GREECE**—The Early Greek World effects of geographical features, earlier civilizations, first period of colonization, Homeric age, story of Troy, the City State, life of the people, contributions to later Greek civilization

Period of Development colonial expansion, rise of Sparta, classes of society, government aristocratic constitution, myth of Lycurgus, strength and weakness, rise of Athens to Democracy, abolition of monarchy, the aristocracy (general statement only), Draco, Solon, the tyranny Pisistratus, the democracy (general statement only), Cleisthenes, Intellectual awakening The struggle for freedom war with Persia, conquest of Asiatic Greece, Marathon, Themistocles, the navy, invasion under Xerxes Thermopylae, Salamis, historic importance of Marathon, results of struggle on Athens

The Athenian Empire confederacy of Delos, government under Pericles, the Golden age, social conditions of people, strength and weakness of Athenian democracy, our debt to Athens

Discord and Decline the Peloponnesian Wars (no details regarding battles) Causes direct, indirect First stage land power versus sea power, death of Pericles Second stage the Sicilian expedition, Alcibiades Downfall of Athens Lysander, terms of peace Leadership of Sparta (in brief outline) expedition of Cyrus, retreat of the "Ten Thousand", Xenophon, effects of Spartan violence, Liberation of Thebes, Pelopidas, battle of Leuctra, significance Leadership of Thebes Epaminondas, battle of Mantinea Rise of Macedon the country and people Philip Thebes and Philip, Philip and his army, war with Athens Chaeromea, Demosthenes Greece under Philip Alexander education, conquests battle of Issus; founding of Alexandria, battle of Arbela, organization of Empire, death and character, results of his conquests Contribution of Hellas to civilization art, literature, philosophy

**ROME**—Early Italian world effects of geographical position, physical features of Italy, tribes of Italy, legendary beginning of Rome (without details of kings) Rome under the kings family life, religion, social classes, government The early Republic the aristocratic Republic, struggle with the Plebs The charters of Liberty (without details) the twelve tables, Licinian laws, Hortensian laws, the Roman democracy (general statement only) Early struggle for existence stories of Cincinnatus and

Camillus Conquest of Italy Latin and Samnite wars (no details), causes of Rome's success Italy organized under Rome (general statement only) social conditions The Punic wars the First Punic war The Carthaginian Empire comparison with Rome Struggle for Sicily outline of events, results The Second Punic war the Carthaginians in Spain, the invasion of Italy, Hannibal's victories in outline, conquest of Spain by Scipio, battle of Zama, results of the war The Third Punic war destruction of Carthage, Carthage a Roman province The conquest of the East the struggle with Macedonia (general statement only), destruction of Corinth, Greece a Roman province, war with Syria, effects of conquests on art and literature, on customs and religion, on social conditions, on political organization Growth of Plutocracy evil effects, Cato Period of Civil Strife—Military Rule causes of strife (see previous chapter), the reforms of the Gracchi Marius the rise of Marius, Jugurtha, the social war Sulla the Mithridatic wars, the Sullan constitution, first Civil war, senate made supreme Rise of Pompey Sertorius, Spartacus, Pompey as consul, conquests in the east, conspiracy of Catiline, Cicero, the first Triumvirate Rise of Caesar conquests in Gaul, second Civil War, cause, defeat of Pompey, Caesar's government and death, Caesar's reforms Founding of the Empire Caesar's heir, the second Triumvirate, defeat of Antony, government under Augustus, the Augustus policy extent of the empire The Augustine Age literature, public works, birth of Christ

#### BOOKS OF REFERENCE

The following books will be found useful for supplementary reading on the topics of the course, and should be placed in every High School library Breasted, *Ancient Times*, Ginn & Co, Botsford, *A History of Greece*, Macmillan, Pelham, *Outlines of Roman History*, Putnam, Havell, *Republican Rome*, Ballantyne Press, Cotterill, *Ancient Greece*, Ballantyne Press, Botsford, *A Source Book of Ancient History*, Macmillan, Munro, *A Source Book of Roman History*, Heath & Co, Fling, *A Source Book of Greek History*, Heath & Co, *Translations of the histories of Herodotus, Thucydides, Polybus and Livy*, Ginn's Classical Atlas, Ginn & Co

#### MATHEMATICS

ALGEBRA —Elementary rules, factoring, highest common measure, lowest common multiple, fractions, simple equations of one, two and three unknown quantities, extraction of roots, more advanced factoring, simple graphs, simple ratio and proportion, indices, surds, quadratics of one and two unknown quantities, theory of quadratics

One examination paper.

## GEOMETRY — A — CONSTRUCTIONS

To construct a triangle with sides of given lengths

To construct an angle equal to a given rectilineal angle

To bisect a given angle

To bisect a given straight line

To draw a straight line perpendicular to a given straight line from a given point in it

To draw a straight line perpendicular to a given straight line from a given point not in the line

Locus of a point equidistant from two given straight lines

Locus of a point equidistant from two given points

To draw a straight line parallel to another, through a given point

To divide a given straight line into any number of equal parts

To describe a parallelogram equal to a given triangle, and having an angle equal to a given angle

To describe a parallelogram equal to a given rectilineal figure, and having an angle equal to a given angle

On a given straight line to describe a parallelogram equal to a given triangle, and having an angle equal to a given angle.

To find the centre of a given circle

From a given point to draw a tangent to a given circle

On a given straight line to construct a segment of a circle containing an angle equal to a given angle

From a given circle to cut off a segment containing an angle equal to a given angle

In a circle to inscribe a triangle equiangular to a given triangle.

To find locus of centres of circles touching two given lines

To inscribe a circle in a given triangle

To describe a circle touching three given straight lines

To describe a circle about a given triangle

About a given circle to describe a triangle equiangular to a given triangle

To divide a given straight line similarly to another given divided straight line

To find the fourth proportional to three given straight lines

To describe a polygon similar to a given polygon, and with the corresponding sides in a given ratio

To find the mean proportional between two given straight lines

To construct a polygon similar to a given polygon, and such that their areas are in a given ratio

To describe a polygon of a given shape and size.

## B — THEOREMS

The sum of the angles of any triangle is equal to two right angles

The angles at the base of an isosceles triangle are equal, with converse.

If the three sides of one triangle be equal, respectively, to the three sides of another, the triangles are equal in all respects.

If two sides and the included angle of one triangle be equal to two sides and the included angle of another triangle, the triangles are equal in all respects

If two angles and one side of a triangle be equal to two angles and the corresponding side of another, the triangles are equal in all respects

If two sides and an angle opposite one of these sides be equal, respectively, in two triangles, the angles opposite the other pair of equal sides are either equal or supplemental

The sum of the exterior angles of a polygon is four right angles

The greater side of any triangle has the greater angle opposite it

The greater angle of any triangle has the greater side opposite it

If two sides of one triangle be equal respectively to two sides of another, that with the greater contained angle has the greater base, with converse

If a transversal fall on two parallel lines, prove the relations between angles formed, with converse

Lines which join equal and parallel straight lines towards the same parts are themselves equal and parallel

The opposite sides and angles of a parallelogram are equal and each diagonal bisects it

Parallelograms on the same base, or on equal bases, and between the same parallels are equal

Triangles on the same base, or on equal bases, and between the same parallels are equal

Triangles equal in area, and on the same base, are between the same parallels

If a parallelogram and a triangle be on the same base, and between the same parallels, the parallelogram is double the triangle

Find expressions for area of a parallelogram, and the area of a triangle

The complements of the parallelograms about the diagonal of any parallelogram are equal

The square on the hypotenuse of a right-angled triangle is equal to the sum of the squares on the sides

If a straight line be divided into any two parts, the sum of the squares on the parts, together with twice the rectangle contained by the parts, is equal to the square on the whole line

The square on a side of any triangle is equal to the sum of the squares on the two other sides + twice the rectangle contained by either of these sides and the projection of the other side on it

If more than two equal straight lines can be drawn from the circumference of a circle to a point within it, that point is the centre

The diameter is the greatest chord in a circle, and a chord nearer the centre is greater than one more remote. Also the greater chord is nearer the centre than the less

The angle at the centre of a circle is double the angle at the circumference on the same arc

The angles in the same segment of a circle are equal, with converse

The opposite angles of a quadrilateral inscribed in a circle are together equal to two right angles, with converse.

The angle in a semicircle is a right angle, in a segment greater than a semicircle less than a right angle, in a segment less than a semicircle greater than a right angle

A tangent to a circle is perpendicular to the radius at the point of contact, only one tangent can be drawn at a given point on the circumference, the perpendicular to the tangent at the point of contact passes through the centre, the perpendicular from centre on tangent passes through the point of contact

If two circles touch, the line joining the centres passes through the point of contact

The angles which a chord drawn from the point of contact makes with the tangent, are equal to the angles in the alternate segments

The rectangles under the segments of intersecting chords are equal

If  $OAB$  and  $OC$  be two straight lines, and  $OA \cdot OB = OC^2$ ,  $OC$  is a tangent to the circle through  $A$ ,  $B$ , and  $C$

Triangles of the same altitude are as their bases

A straight line parallel to the base of a triangle divides the sides proportionally, with converse

If the vertical angle of a triangle be bisected, the bisector divides the base into segments that are as the sides, with converse

The analogous proposition when the exterior angle at the vertex is bisected, with converse

If two triangles are equiangular, the sides are proportional

If the sides of two triangles are proportional, the triangles are equiangular

If the sides of two triangles about equal angles are proportional, the triangles are equiangular

If two triangles have an angle in each equal, and the sides about two other angles proportional, the remaining angles are equal or supplementary

Similar triangles are as the squares on corresponding sides.

The perpendicular from the right angle of a right-angled triangle on the hypotenuse divides the triangle into two triangles which are similar to the original triangle

In equal circles angles, whether at the centres or circumferences, are proportional to the arcs on which they stand.

The areas of two similar polygons are as the squares on corresponding sides

If three straight lines be proportional, the first is to the third as the figure on the first to a similar figure on the second

Questions and easy deductions on the preceding constructions and theorems

It is recommended that the study of formal demonstrative Geometry be preceded by a course in Practical Geometry, extending over not more than a year, and embracing the following —

Definitions fundamental geometric conceptions and principles, use of simple instruments, as compasses, protractor, graduated rule, etc., measurement of lines and angles, and construction of lines and angles of given numerical magnitude, accurate construction of figures, some leading propositions in plane geometry reached by induction as a result of accurate construction of figures, deduction also employed as principles are reached and assured. At the examination, questions may be given in Practical Geometry, the constructions being such as naturally spring from the prescribed course. Candidates must provide themselves with a graduated ruler, compasses, set-square and protractor.

In the formal deductive Geometry modifications of Euclid's treatment of the subject will be allowed, though not required, as follows —

The employment of the "hypothetical construction"

The free employment of the method of superposition including the rotation of figures about an axis, or about a point in a plane

A modification of Euclid's parallel postulate

A treatment of ratio and proportion restricted to the case in which the compared magnitudes are commensurable

One examination paper

## EXPERIMENTAL SCIENCE

**CHEMISTRY** —An experimental study of the following elements and their more important compounds: hydrogen, oxygen, sulphur, sodium, potassium, nitrogen, chlorine, bromine, iodine, carbon, calcium. The course of work should be arranged so as to give the pupils a knowledge of the following: Mixtures, solutions, compounds, and elements, and their various properties and reactions, acids, bases, and salts. Fundamental laws and principles, as conservation of mass, definite proportions, multiple proportions, valency, proportions by volume in which gases react. The quantitative meaning and use of chemical symbols, formulae and equations. Chemical nomenclature. Simple quantitative experiments and problems. The application of chemistry to the industries, illustrated by an account of the commercial manufacture and use of some of the more important substances included in this course.

**PHYSICS** —A course defined as follows, the topics to be presented experimentally with mathematical applications simple and direct in character.

**SOUND** —Vibratory motion illustrated with pendulums, rods, strings, membranes, and plates.

Types of wave motion illustrated by water waves, waves in a cord, and waves in a coiled spring.

Production, propagation, velocity, and reflection of sound waves, wave lengths.

Intensity, pitch

Laws of vibration of strings, vibration of air in organ pipes, nodes and loops in vibrating strings, and in vibrating air columns, harmonies, quality, manometric flames

Interference phenomena, beats

Resonance

HEAT—Sources of heat Transformation of other forms of energy into heat energy

Expansion due to heat Anomalous expansion of water and its importance in nature, expansion of gases, Charles' Law

Temperature and thermometers Construction and graduation of Centigrade and Fahrenheit thermometers, measurement of temperature on absolute scale

Quantity of heat Temperature as contrasted with quantity of heat, heat units, specific heat, determination of the specific heat of a solid and of a liquid

Fusion Determination of melting point of ice, heat changes in solution, determination of heat of fusion of ice, the influence of salt in solution on the freezing point

Vaporization Determination of heat of vaporization of water, dependence of boiling point on pressure and on the presence of salts in solution, evaporation, practical applications of cooling by vaporization, ice machine

Transference of heat Conduction and convection, as illustrated in systems of heating by hot water and by steam, ventilation, radiation, radiant energy, effect of temperature and nature of surface, emission and absorption, selective absorption

The transformation of heat energy into the energy of mechanical motion as exemplified in the steam engine and in the gas engine

Heat in connection with meteorology, clouds, rain, winds, dew, frost, dew point, hygrometers (Regnault's and the wet and dry bulb hygrometer)

Nature of heat Kinetic theory

LIGHT—Propagation Wave theory of light, rectilinear propagation, image through a pin-hole, photometry, shadow and grease-spot photometers

Reflection Laws of reflection, images in plane mirrors, images in spherical mirrors, drawing image of object in any position

Refraction Laws of refraction, index of refraction, its measurement, and its relation to the velocities of light in media, total reflection

Lenses Converging and diverging, determination of focal length, conjugate foci, drawing of images produced by lenses, vision through a lens, relation of the size of the image to the size of the object

Optical instruments Simple microscope, camera, projection lantern

Colour Decomposition and recomposition of white light, spectrum, complementary colours, rainbow

**MAGNETISM AND ELECTRICITY**—Magnetism Laws of magnetic attraction and repulsion, magnetic field, magnetic lines of force, magnetism by induction, magnetization, molecular theory of magnetization, magnetic permeability, terrestrial magnetism, mariner's compass, inclination and declination of the magnetic needle

**Electricity at rest** Two kinds of electrification, conductors and non-conductors, gold-leaf electroscope, induced electrification, electricity at points and at surfaces, lightning rods, the Leyden jar, simple notions of electrical potential

**Electric current** Production of electric current by voltaic cells, electromotive force of a voltaic cell, detection of the electric current, polarization and local action, simple notions of the relation of electromotive force, current strength, and resistance, names of units, Leclanche cell, dry cell, Daniell cell

**Effects of the electric current** Electrolysis, theory of electrolysis, electroplating, electrotyping, storage cell, laws of electrolysis, measurement of current strength by electrolysis, magnetic effects, electromagnet, relation between the direction of the current and the polarity of an electromagnet, the electric telegraph, the electric bell, the galvanometer, the D C motor, heating effects of the current, practical applications, electric stoves, electric irons, electric heaters, electric welding, incandescent and arc lamps

**Induced currents** Production of induced currents, laws of induced currents, Lenz's Law, the transformer, the induction coil, the telephone, a simple type of the A C and of the D C dynamo Reasons for the use of the A C current, differences in the uses of the A C and D C current, distribution of electricity as illustrated by the Hydro-Electric System

**Electric measurements** Units of current strength, resistance, and electromotive force, Ohm's Law, measurement of current strength, the ammeter, measurement of electromotive force, the voltmeter, measurement of resistance, the Wheatstone Bridge

**Special forms of radiation** Electric waves, wireless telegraphy

## AGRICULTURE

### PART I

#### AGRICULTURAL PHYSICS

**SOIL**—Classification and identification of samples of soil by the "beaker" method into clay, loam, clay loam, sandy loam and sand, comparison of two soils by the aid of a compound microscope, identification and study of soil in the fields, experiments to show the physical effects of lime or heavy and on light soil, influence of air, cultivation and drainage on the action of lime

**Tillage** Uses of plow, cultivator, scuffler, harrow and roller, experiments to show the use of mulches, and the action of frost on heavy soil

**Drainage** Methods and value, calculation of cost of tile drainage on a given area



**SURVEYING**—Use of instruments (including level and chain) for taking levels, running lines, calculation of areas

**FARM MECHANICS**—Care of tools and farm implements, experiments to show warping and splitting of wood on exposure to the weather, practice in sharpening such tools as chisel, knife and scissors, the use of levers and pulleys in machinery, principle of the internal-combustion engine

**ELECTRICITY**—Electricity at Rest Two kinds of electrification, conductors and non-conductors, gold leaf electroscope, induced electrification, electricity at points and surfaces, the Leyden jar, lightning-rods

**Current Electricity** Principle of voltaic cells, use of dry cells galvanometer, detection of the current, simple notions of electro-motive force, current strength and resistance including names of units, electro-magnet, relation between the direction of the current and the polarity of a magnet, telegraph, electric bell, electric appliances—irons, stoves, welders, lamps, production of induced currents, laws of induced currents, the induction coil and transformer

#### AGRICULTURAL CHEMISTRY

**GENERAL**—A brief experimental study of the following elements carbon, oxygen, hydrogen, nitrogen, phosphorus, sulphur, potassium, calcium, and the compounds of these elements used by green plants, chemical symbols, formulae and equations, chemical nomenclature

**Note**—It is intended that the student through experimental study shall become familiar with the above mentioned elements and their compounds which have direct bearing upon agriculture

**SOILS**—Experiments to show how the insoluble compounds of the soil containing calcium and phosphorus may be made soluble (e g, the action of carbon dioxide and water on calcium carbonates and phosphates), a study of the amount of plant food constituents in soil, the necessity of an abundance of humus and lime (compounds of calcium), nitrification, means of getting nitrogen into the soil, special influence of nitrogen, phosphorus, and potassium compounds on the growth of plants, influence of period of growth, range of root, and ability of plants to assimilate food, on the problem of the manuring for different crops

**BARNYARD MANURE AND FERTILIZERS**—Composition, care and treatment of barnyard manure, commercial sources of nitrogen, phosphorus and potassium used to supplement barnyard manure, experiments to prove the presence of and to show the relative solubility of the three plantfood elements in these materials and why certain of the materials should not be mixed, calculation of the percentage of available plantfood in different mixtures of fertilizer materials, explanations of the commercial terms "phosphoric acid" and "potash" The chief provisions of the Fertilizer Act

**INSECTICIDES AND FUNGICIDES**—An experimental study of arsenate of lead, arsenate of lime, Paris green, lime-sulphur, Bordeaux mixture, and orchard "dusts", why some insecticides and fungicides cannot be used in combination

## PART II

**BOTANY**—Calculation of the percentage of foul seed in three or four samples of clover (or alfalfa) and timothy, use of compound microscope in examining spores and mycellia, recognition, from specimens, of rusts, smuts, white rust of crucifers, brown rot of stone fruits, mildew of cherry or lilac and anthracnose of bean Chief provisions of Seeds Control Act and Noxious Weeds Act

**ENTOMOLOGY**—Identification, nature of injury, life history and methods of control of any six of the most common harmful insects of the district, e.g., white grub, wire worm, plum curculio, codling moth, San José scale, oyster shell scale, cabbage maggot, cabbage worm, Hessian fly, European corn borer, potato beetle, and clothes moth

**POULTRY**—Practical operation of the incubator—ventilation, moisture, candling eggs, variation in size of air chamber, blood clots, development of the embryo by examining eggs broken open every one or two days during the period of incubation; use of water-glass in preserving eggs, poultry products and marketing

**DAIRYING**—Principles and uses of the Babcock machine and the lactometer, testing cream and skim milk (or whey) for fat, determining whether milk has been watered by use of the formula— $(L R \text{ at } 60^{\circ} \text{ plus } \% \text{ of fat}) - 4 = \% \text{ S N F}$ , food value of milk and its products, principle and use of the milk separator, making butter with a laboratory churn, use of starters

**FIELD CROPS**—Different types of farming; crop distribution over Ontario, meaning and importance of crop rotation, influence of the keeping of live stock on the kind of rotation, germination tests of seed, e.g., oats, turnips, corn, clover, laboratory work in seed judging and seed selection, meaning and merits of pasture crops, silage crops and soiling crops, the yield and quality of crop as influenced by the time of sowing, calculation of the relative value of certain crops as "money" crops

**ANIMAL HUSBANDRY**—History and characteristics of the chief breeds of horses, cattle, sheep, swine, value and importance of live stock, a survey of the breeds found in the locality, meaning of pedigree stock and grade stock, disadvantage of keeping scrub stock, visit to a local farm to study the stock kept there

Or

**HORTICULTURE**—Orchard management—spraying, pruning, grafting, cultivating, cover crops, packing and marketing apples, methods of producing early vegetables, practice in seeding, transplanting, cultivating mulching, fruit survey for at least two kinds of fruit

## HONOUR MATRICULATION

## GREEK

Translation into English of passages from the prescribed texts, with questions thereon

Translation at sight of prose passages of average difficulty from Xenophon's historical works

Translation into Greek of sentences (based upon Xenophon's vocabulary) to test the candidate's scholarship in matters of accidence, syntax and phraseology

The following are the prescribed texts —

1925 Xenophon, *Hellenica* (Philpotts' Selections, sections I and II), Homer, *Iliad*, I, 1-350, III, 124-244, VI, 66-118, and 237 to the end, *Odyssey* VI, Herodotus, *Salamus* (Edwards)

1926 Xenophon, *Hellenica* (Philpotts' Selections, sections I, II, and III), Herodotus, *Salamus* (Edwards), Rennie's Selections from Homer (Edward Arnold, London), *Iliad* I, 148-192, 223-246, 345-363, III, 139-190, VI, 369-502, XXII, 273-363, *Odyssey* I, 113-177, V, 291-327, VI, 71-126, IX, 437-472, XII, 165-200, XIV, 1-54, XVII, 290-327, XXII, 1-41

1927 The same as 1926

Two papers will be set (1) prescribed texts, (2) translation at sight and Greek prose composition

## LATIN

Translation into English of passages from prescribed texts, with grammatical questions on these passages and such other questions as arise naturally from the context

Translation at sight of a passage of average difficulty from Caesar

Translation into Latin of English sentences to illustrate Latin syntax, and of a continuous passage of English narrative similar to Caesar

The following are the prescribed texts —

1925 Caesar, *De Bello Gallico*, Book V, chaps 24-58, Cicero, *In Catilinam* I, Horace, *Odes* as follows Book I, 1, 4, 5, 9, 21, 22, 24, 29, 31, 37, 38, Book II, 3, 10, 13, 14, 16, Book III, 1, 2, 5, 7, 9, 13, 18, 23, 29, 30, Book IV, 3, 5, 7

1926 Caesar, *De Bello Gallico*, Book V, chaps 24-58, Cicero, *In Catilinam* I, Horace, *Odes* as follows Book I, 1, 4, 5, 8, 9, 10, 14, 22, 24, 38, Book II, 3, 7, 10, 14, 20, Book III, 1, 3, 5, 8, 9, 13, 16, 21, 23, 30, Book IV, 3, 5, 7, 15

1927 The same as 1925

Two examination papers

- (1) Latin Prose Composition and Caesar
- (2) Cicero, Horace and Sight Translation

## ENGLISH

**COMPOSITION** An essay on one of several themes set by the examiners  
One examination paper

**LITERATURE** The candidate will be expected to have memorized some of the finest passages. Besides questions to test the candidate's familiarity with, and comprehension of, the following selections, questions may also be set to determine within reasonable limits his power of appreciating literary art.

The candidate shall produce satisfactory proof by the certificate of the principal of the school from which he comes or otherwise that he has read carefully, during the preceding year, at least four suitable works in English literature (both prose and poetry) in addition to those prescribed below for examination.

1925 Intensive work—Shakespeare, *The Merchant of Venice*, Gray, *Elegy Written in a Country Churchyard*, Goldsmith, *The Deserted Village*, Wordsworth, *Ode to Duty*, Tennyson, *Lancelot and Elaine*. Extensive work—Shakespeare, *Henry IV, Part I*, Eliot, *The Mill on the Floss, Part I* of *Collection of Shorter Poems*.

1926 Intensive work—Shakespeare, *Julius Caesar*, Milton, *L'Allegro*, Coleridge, *The Rime of the Ancient Mariner*, Keats, *The Eve of St Agnes*, Tennyson, *Ode on the Death of the Duke of Wellington*. Extensive work—Shakespeare, *A Midsummer Night's Dream*, Dickens, *David Copperfield, Part II* of *Collection of Shorter Poems*.

1927 Intensive work—Shakespeare, *Macbeth*, Tennyson, *The Lotus Eaters*, Ulysses, Arnold, *Sohrab and Rustum*, Browning, *Love Among the Ruins*, Byron, *The Prisoner of Chillon*. Extensive work—Shakespeare, *As You Like It*, Scott, *Kenilworth, Part III* of *Collection of Shorter Poems*.

1928 Intensive work—Shakespeare, *Henry V*, Tennyson, *Morte d'Arthur*, The Brook, Browning, *Andrea del Sarto*, Wordsworth, Michael, Arnold, *Rugby Chapel*. Extensive work—Shakespeare, *Twelfth Night*, Scott, *Quentin Durward, Part IV* of *Collection of Shorter Poems*.

## PASSAGES FOR MEMORIZATION

1925

Shakespeare, *The Merchant of Venice*

Act I, Sc I, ll	79- 99	I let me play	their brothers fools
Act II, Sc 9, ll	36- 49	Who chooseth me	to be new varnished
Act IV, Sc 1, ll	184-205	The quality of mercy	the deeds of mercy
Act V, Sc 1, ll	54- 65	How sweet the moonlight	cannot hear it
Act V, Sc 1, ll	102-108	The crow doth sing	true proportion

## Collection of Shorter Poems—Part I

Shakespeare, Sonnet xxiv, Milton, On his Blindness, Wordsworth, London, 1802, Blanco White, To Night, Tennyson, "Of old sat Freedom", "Home they brought", Rossetti, Sudden Light, Hardy, The Division, Davies, The Green Tent, Campbell, How One Winter Came in the Lake Region

1926

Shakespeare, Julius Caesar

Act I, Sc 1, ll 40- 60	O you hard hearts	on this ingratitude
Act III, Sc 1, ll 148-163	O mighty Caesar	spirits of this age
Act III, Sc 2, ll 173-196	If you have tears	flourished over us
Act IV, Sc 2, ll 19- 27	Thou hast described	in the trial
Act V, Sc 5, ll 68- 75	This was the noblest	was a man

## Collection of Shorter Poems—Part II

Byron, "There was a sound of revelry" (ll 1-45), Tennyson, "You ask me why", St Agnes' Eve, Hardy, "When I set out for Lyonesse", Lang, Good-bye, Yeats, The Lake Isle of Innisfree, De la Mare, The Scribe, Carman, An April Morning

1927

Shakespeare, Macbeth

Act I, Sc 5, ll 16-31	Glamis thou art	crowned withal
Act III, Sc 2, ll 4- 26	Nought's had	him further
Act III, Sc 2, ll 45- 56	Be innocent	go with me
Act V, Sc 3, ll 22- 28	I have lived	dare not
Act V, Sc 3, ll 39- 45	Cure her	the heart
Act V, Sc 5, ll 16- 28	The Queen	signifying nothing

Shakespeare, As You Like It

Act II, Sc 1, ll 1- 18	Now my co-mates	change it
Act II, Sc 5,	The Songs	
Act II, Sc 7, ll 139-166	All the world's	sans everything
Act II, Sc 7, ll 174-190	The Songs	

Collection of Shorter Poems—Part III "It is not to be thought of", "A weary lot is thine", "The splendour falls", Far-Far-Away

1928

Shakespeare, Henry V

Act I, Sc 1, ll 1- 18	O for a muse	imaginary forces work
Act III, Sc 1, ll 1- 34	Once more into the breach	and St George
Act IV, Sc 3, ll 40- 67	This day is called	St Crispian's Day

Shakespeare, Twelfth Night

Act I, Sc 1, ll 1- 15	If music be	is high fantastical
Act II, Sc 4, ll 113-121	A blank, my lord	little in our love

Collection of Shorter Poems—Part IV The Tiger, "You ask me why", St Agnes' Eve, When I set out for Lyonesse, The Lake Isle of Innisfree, The Scribe

## \*FRENCH

The prescription of work in grammar, the translation of English into French and sight translation, is the same for honours as for pass, but the examination will be of a more advanced character. The continuous passages of English for translation into French will be based on the prescribed texts.

The following are the prescribed texts —

1925 Mérimée, Colomba (Siepmann's Advanced French Series, Macmillan), Augier and Sandeau, Le Gendre de Monsieur Poirier (Siepmann's French Series for Rapid Reading, Macmillan)

1926 Anatole France, Le Livre de mon ami (Holt & Co), Erckmann-Chatrian, Le Juif polonais.

1927 Bordeaux, La Maison, Labiche et Martin, La Poudre au < yeux

Two papers will be set (1) Prescribed texts and translation at sight, questions on grammar, (2) the translation of English into French.

## \*GERMAN

The prescription of work in grammar, the translation of English into German and sight translation, is the same for honours as for pass, but the examination will be of a more advanced character. The continuous passages of English for translation into German will be based on the prescribed texts.

The following are the prescribed texts —

1925 Rosegger, Der Lex von Gutenhag, Moser, Ultimo, Collmann, Easy German Poetry, pp 1-52 (Ginn & Co)

1926 Baumbach, Der Schwiegersohn, Rosen, Ein Knopf and Muller, Im Wartesalon erster Klasse, from "Four German Comedies", (Ginn & Co), Collmann, Easy German Poetry, pp 52-107 (Ginn & Co)

1927 Rosegger, Der Lex von Gutenhag, Freytag, Die Journalisten, Collmann, Easy German Poetry, pp 1-52 (Ginn & Co)

1928 The same as 1926

Two papers will be set (1) Prescribed texts and translation at sight, questions on grammar, (2) the translation of English into German

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\*When the edition is not specified any *unabridged* edition may be used.

## SPANISH

The prescription of work in grammar, the translation of English into Spanish, and sight translation, is the same for honours as for pass, but the examination will be of a more advanced character

The following are the prescribed texts —

1925, 1926, 1927 Ramos Carrión y Aza, *Zaragueta* (Silver, Burdett & Co), Azorín, *Las Confesiones* (Heath & Co)

1928 Pardo Bazán, *El tesoro de Gastón* (Holt & Co), Ramos Carrión y Aza, *Zaragueta* (Silver, Burdett & Co)

Two papers will be set (1) Prescribed text and translation at sight, questions on grammar, (2) the translation of English into Spanish and composition

## ITALIAN

The prescription of work in grammar, the translation of English into Italian, and sight translation, is the same for honours as for pass, but the examination will be of a more advanced character

The following are the prescribed texts —

1925, 1926, 1927, 1928 Wilkins and Altrocchi, *Italian Short Stories* (Heath and Co), Fogazzaro, *Peregrinatio* (Heath and Co)

Two papers will be set (1) Prescribed text and translation at sight, (2) questions on grammar and translation of sentences illustrating the grammar

## HISTORY

Modern World History from 1789 to 1920 The geography relating to the history prescribed One examination paper

NOTE—The following sections of the course given below are obligatory 1, 2, 3, 7, 8, and 12 In addition candidates must take either sections 4 and 6 or section 5, and either sections 9 and 10 or section 11

1 A brief survey of conditions at the beginning of the period (a) political, (b) social and economic, (c) educational, (d) religious

2 The French Revolution, 1789-1799, and its influence on other peoples

3 The Napoleonic Era, 1799-1815, and its world results

4 The period of reaction after 1815

5 The Industrial Revolution from its beginnings in the first half of the eighteenth century

6 The growth of democracy to 1850 on the continent of Europe, in Great Britain, in Canada

7 The development of Nationalism after 1850 France, Italy, Germany, Russia, the Balkan States

8 The growth of great empires British Empire, German Empire, Russian Empire, France, Japan, the United States

9 International relations Chief alliances of European powers, the Monroe doctrine

10 The Great War causes, great events, results

11 Survey of the progress of civilization during the period political, social and economic, educational (including literature and art), scientific, religious

12 Development of government in Upper and Lower Canada, 1789-1867, and in the Dominion of Canada, 1867-1920, as outlined in the Ontario High School History of Canada

#### BOOKS OF REFERENCE

The following books will be found useful for supplementary reading on the topics of the course and should be placed in every High School library Robinson and Beard, *A History of Europe Our Own Times*, Ginn & Co., Hazen, *Modern European History*, Holt, Hayes, *Political and Social History of Modern Europe*, 2 vols., Macmillan, Robinson and Beard, *Readings in Modern European History*, 2 vols., Ginn & Co., Matthews, *The French Revolution*, Longmans, Belloc, *The French Revolution*, Ryerson Press, Fisher, *Napoleon*, Ryerson Press, Seymour, *Diplomatic Background of the War*, Yale University Press, Robertson and Bartholomew, *Atlas of Modern European History*, Oxford University Press, Hearnshaw, *Historical Atlas of Modern Europe*, Macmillan

#### MATHEMATICS

ALGEBRA—Elementary rules, factoring, highest common measure, lowest common multiple, fractions, simple equations of one, two and three unknown quantities, extraction of roots, more advanced factoring, simple graphs, simple ratios and proportion, indices and surds, quadratics of one and two unknown quantities, theory of quadratics, theory of divisors, ratio, proportion and variation, progressions, notation, permutations and combinations, binomial theorem, interest forms, annuities and sinking funds

One examination paper

TRIGONOMETRY—The trigonometrical ratios with their relations to one another, sines, etc., of the sum and difference of angles, with deduced formulas, use of logarithms, solution of triangles, expression for the area of triangles, inverse functions, radii of circumscribed, inscribed and escribed circles

One examination paper



PROBLEMS One paper (For certain scholarship candidates only)

GEOMETRY A candidate must take section C and either section A or section B

### A—SYNTHETIC GEOMETRY

Exercises on the course prescribed for the pass examination, with special reference to the following topics: loci, maxima and minima, the system of inscribed, escribed and circumscribed circles of a triangle, with metrical relations, radical axis

The following additional propositions in Synthetic Geometry, with exercises thereon—

To divide a given straight line internally and externally in medial section

To describe a square that shall be equal to a given rectilineal figure

To describe an isosceles triangle having each of the angles at the base double of the third angle

To inscribe a regular pentagon in a given circle

The squares on two sides of a triangle are together equal to twice the square on half the third side and twice the square on the median to that side

If  $ABC$  be a triangle, and  $A$  be joined to a point  $P$  of the base such that  $BP \cdot PC = m \cdot n$ , then  $nAB^2 + mAC^2 = (m+n)AP^2 + nBP^2 + mPC^2$

In a right-angled triangle the rectilineal figure described on the hypotenuse is equal to the sum of the similar and similarly described figures on the two other sides

If the vertical angle of a triangle be bisected by a straight line which also cuts the base, the rectangle contained by the sides of the triangle is equal to the rectangle contained by the segments of the base, together with the square on the straight line which bisects the angle

If from the vertical angle of a triangle a straight line be drawn perpendicular to the base, the rectangle contained by the sides of the triangle is equal to the rectangle contained by the perpendicular and the diameter of the circle described about the triangle

The rectangle contained by the diagonals of a quadrilateral inscribed in a circle is equal to the sum of the two rectangles contained by its opposite sides

Two similar polygons may be so placed that the lines joining corresponding points are concurrent.

If a straight line meet the sides  $BC$ ,  $CA$ ,  $AB$ , of a triangle  $ABC$  in  $D$ ,  $E$ ,  $F$ , respectively, then  $BD \cdot CE \cdot AF = DC \cdot EA \cdot FB$ , and conversely (Menelaus' Theorem)

If straight lines through the angular points  $A$ ,  $B$ ,  $C$  of a triangle are concurrent, and intersect the opposite sides in  $D$ ,  $E$ ,  $F$ , respectively, then  $BD \cdot CE \cdot AF = DC \cdot EA \cdot FB$ , and conversely (Ceva's Theorem)

If a point A lie on the polar of a point B with respect to a circle, then B lies on polar of A

Any straight line which passes through a fixed point is cut harmonically by the point, any circle, and the polar of the point with respect to the circle

In a complete quadrilateral each diagonal is divided harmonically by the two other diagonals, and at the angular points through which it passes

## B—ELEMENTARY SOLID GEOMETRY

Definitions General description of figures in three dimensions

The following propositions, with exercises thereon

A plane is determined by (a) a straight line and point not on it, (b) two intersecting straight lines, (c) two parallel straight lines

Two intersecting planes cut one another in a straight line and in no other point

If two straight lines are parallel, any plane intersecting one of them intersects the other

If two planes are parallel, any straight line intersecting one of them intersects the other

If a straight line is perpendicular to two intersecting straight lines at their point of intersection, it is perpendicular to every straight line in their plane through their point of intersection

Conversely, all straight lines intersecting a given straight line at a given point and perpendicular to it lie in a plane

If one of two parallel straight lines is perpendicular to a plane, the other is also

Conversely, if two straight lines are perpendicular to the same plane, they are parallel

If a straight line be at right angles to a plane, any plane through the line is perpendicular to the plane

To draw a perpendicular to a given plane from a given point

One, and only one, straight line can be drawn through a given point and perpendicular to a given plane

The perpendicular from a given point to a plane is the shortest distance from the point to the plane

If two straight lines are parallel to the same straight line they are parallel to each other

If two intersecting straight lines are parallel respectively to two other intersecting straight lines the contained angles are equal

If two planes have a common perpendicular they are parallel, and conversely

If two intersecting straight lines are respectively parallel to two other intersecting straight lines, the plane of the first two is parallel to the plane of the second two

Straight lines which are cut by three or more parallel planes are cut proportionally

To draw a perpendicular to two given straight lines not in the same plane

There is only one common perpendicular to two straight lines not in the same plane

In a tetrahedron the sum of any two angles at a vertex is greater than the third, and the sum of three angles is less than three right angles

In a polyhedron the sum of the number of faces and the number of corners or vertices is two greater than the number of edges

There are not more than five regular polyhedra

The four diagonals of a parallelepiped are concurrent and bisect one another

The four straight lines which join vertices of a tetrahedron to the centroids of the opposite faces meet in a point which divides them in the ratio 3:1, and the three lines which join the middle points of opposite edges meet in the same point and are bisected there

Any plane section of a pyramid taken parallel to the base, is similar to the base, and the area of such a section varies as the square of its distance from the vertex

The volumes of two pyramids of equal heights and equal base areas are equal

One sphere and only one can pass through four points not in the same plane

Mensuration of volumes, surface areas, linear measurements in the following prism, pyramid, cylinder, cone, frustum of cone, pyramid, or sphere, zone of a sphere

### C—ELEMENTARY ANALYTICAL GEOMETRY

Axes of co-ordinates Position of a point in plane of reference

Transformation of co-ordinates,—origin changed, or axes (rectangular) turned through a given angle

$$\pm 2A = x_1(y_2 - y_3) + \dots +$$

Co-ordinates of point dividing line joining  $P_1(x_1, y_1)$  and  $P_2(x_2, y_2)$  in ratio  $m:n$  are  $x = \frac{mx_2 + nx_1}{m+n}$ ,  $y = \frac{my_2 + ny_1}{m+n}$

$$(P_1P_2)^2 = (x_1 - x_2)^2 + (y_1 - y_2)^2$$

Equations of straight lines

$$\left. \begin{aligned} \frac{x - x_1}{x_1 - x_2} &= \frac{y - y_1}{y_1 - y_2} \\ \frac{x}{a} + \frac{y}{b} &= 1 \\ \frac{x - a}{\cos \theta} &= \frac{y - b}{\sin \theta} = r \\ y &= mx + b \\ y &= m(x - a) \\ x \cos \alpha + y \sin \alpha &= p \end{aligned} \right\} \begin{array}{l} \text{Line defined by two points} \\ \text{through which it passes,} \\ \\ \\ \text{Line defined by one point} \\ \text{through which it passes} \\ \text{and by its direction.} \end{array}$$

General equation of 1st degree,  $Ax + By + C = 0$ , represents a straight line

Any line through  $(x_1, y_1)$  is  $A(x - x_1) + B(y - y_1) = 0$

If  $\theta$  be angle between  $Ax + By + C = 0$  and  $A'x + B'y + C' = 0$ , the

$$\tan \theta = \frac{A'B - AB'}{AA' + BB'}$$

Condition of  $\perp$  rity,  $AA' + BB' = 0$

Condition of  $\parallel$  ism,  $\frac{A}{A'} = \frac{B}{B'}$

Distance from  $(a, b)$  to  $Ax + By + C = 0$ , in direction whose direction cosines are  $(l, m)$  is  $= \frac{Al + Bm + C}{\sqrt{A^2 + B^2}}$

$\perp$  distance from  $(a, b)$  on  $Ax + By + C = 0$   
 $\pm \frac{Aa + Bb + C}{\sqrt{A^2 + B^2}}$

### THE CIRCLE—

Equations in forms

$$\begin{aligned} x^2 + y^2 &= r^2 \\ (x - a)^2 + (y - b)^2 &= r^2 \\ x^2 + y^2 - 2rx &= 0 \end{aligned}$$

General equation  $x^2 + y^2 + 2Ax + 2By + C = 0$ ,

or  $(x + A)^2 + (y + B)^2 = A^2 + B^2 - C$ ,

represents a circle with centre  $(-A, -B)$  and radius  $\sqrt{A^2 + B^2 - C}$

Tangent at  $(x', y')$  to  $x^2 + y^2 = r^2$ , is  $xx' + yy' = r^2$

Normal is  $\frac{x}{x'} = \frac{y}{y'}$

Tangent in form  $y = mx \pm r\sqrt{1 + m^2}$

Pole being  $(x', y')$ , polar is  $xx' + yy' = r^2$

If pole move along a line, polar turns about pole of that line

Square of tangent from  $(x', y')$  to  $x^2 + y^2 + 2Ax + 2By + C = 0$

$$= x'^2 + y'^2 + 2Ax' + 2By' + C$$

Radical axis of  $x^2 + y^2 + 2Ax + 2By + C = 0$ ,

$$x^2 + y^2 + 2A'x + 2B'y + C' = 0$$

Easy exercises on the preceding propositions

One examination paper

## PHYSICS

A course defined as follows, the topics to be presented experimentally with mathematical applications simple and direct in character

**MECHANICS OF SOLIDS.**—Metric and English units of length Use vernier calipers, screw-gauge, in measurement of wires, cylinders, spheres plates, etc

Unit of time

Motion velocity, uniform and variable, average velocity, velocity at a point

Newton's first law of motion, force, inertia, and mass, metric and English units of mass

Acceleration, measurement of uniform acceleration, acceleration due to gravity, value of  $g$

Momentum, Newton's second law, measurement of force, metric and English absolute and gravitational units of force

Newton's third law, conservation of momentum, centripetal and centrifugal force with illustrations, centrifuge, cream separator, form of earth, etc

Composition and resolution of forces, parallelogram of forces, triangle of forces, moments, couples, centre of gravity

Friction laws of friction, co-efficient of friction

Gravitation Newton's laws of gravitation, Cavendish's experiment

Work measurement of work in metric and English absolute and gravitational units, energy, measurement of energy, kinetic and potential energy, conservation of energy

Power measurement of power, horse power, the watt

Machines, mechanical advantage, lever, wheel and axle, pulley, inclined plane, screw, wedge, simple combinations of the foregoing

**MECHANICS OF FLUIDS**—Pressure pressure at a point, Pascal's law, pressure due to gravity, equilibrium of fluids at rest, Archimedes' principle, buoyancy, hydraulic pressure, specific gravity, determination of specific gravity of solids and liquids

Atmospheric pressure barometers, weight of air, pressure due to molecular motion, lift and force pumps, siphon, the use of compressed air, airbrakes, air tools

Velocity due to pressure Torricelli's theorem, pressure in a moving column of fluid varies with the velocity, application to explain the principle of the atomizer, the Bunsen burner, the Bunsen filter pump, forced draught, the curved flight of a ball

Surface tension surface force, surface energy; capillarity, practical applications

**TRANSFORMATIONS OF ENERGY**—Mechanical equivalent of heat, measured mechanically and electrically, measurement of electrical energy, the kilowatt hour

## CHEMISTRY

Chemistry of Pass Matriculation reviewed and continued

Reversible reactions and chemical equilibrium  $e.g.$ , ice = water, water = steam, bluestone = anhydrous copper sulphate and water, limestone = quick lime and carbon dioxide, ferric chloride and ammonium sulphocyanate = ferric sulphocyanate and ammonium chloride (in solution), a salt in equilibrium with saturated solution, etc Conditions which effect equilibrium

Rate of reaction and conditions that effect it (including catalysis), *e g*, the action of a dilute solution of potassium permanganate, oxalic acid, in presence of sulphuric acid, the souring of milk, etc

A study of the following elements and their most characteristic compounds, having regard to Mendelejeff's classification and to their most important economic and industrial applications hydrogen, sodium, potassium, magnesium, zinc, calcium, aluminium, carbon, lead, nitrogen, phosphorus, arsenic, antimony, oxygen, sulphur, chlorine, bromine, iodine, iron, copper, silver

Qualitative analysis (practical) may be used for studying the properties of the above elements and for further illustrations of reversible reactions and chemical equilibrium *e g*, a very dilute solution of lead nitrate does not give a precipitate of lead chloride and the same solution may give a precipitate of lead sulphide and from this we may draw conclusions as to the relative solubility of these lead compounds, a dilute solution of lead nitrate with sulphuric acid gives a precipitate of lead sulphate soluble in nitric acid, etc

It should be kept in mind that the student is not learning analysis but is using the scheme for qualitative analysis to provide illustrations of chemical equilibrium and to illustrate the properties of the compounds, *e g*, insolubility, etc

Organic chemistry, alcohols, acids and esters (fats), methyl alcohol, ethyl alcohol, glycerine, acetic acid, stearic acid, ethyl acetate, tallow and lard Soap making Carbohydrates glucose, cane sugar, starch, cellulose Hydrolysis of starch Proteins Petroleum and its commercial products Fractional distillation These organic compounds should be treated from the descriptive point of view and few formulas should be used

NOTE—It is suggested that the topics under "Organic Chemistry" be not treated more exhaustively than they are in such text-books as Alexander Smith's Intermediate Chemistry, Macpherson and Henderson's First Course in Chemistry

## BIOLOGY

### ZOOLOGY

Practical study of the external form of all types, and the dissection or the study of prepared specimens (or models), as specified below  
Observational drawings are essential

Mode of life and life history of the various types Reasons for including these types in their respective groups

ARTHROPODA—Practical study of the external features of the crayfish, including segmentation and appendages, mode of locomotion and respiration Description, life-history and relation to man of the following insects May beetle, European corn borer, codling moth, tent caterpillar, mosquito, honey bee, ichneumon fly Comparison of the external features of the crayfish, grasshopper (or cricket), millipede and spider

Study of the principles of classification as illustrated by the Arthropoda  
Recognition-characters of the following orders of insects Orthoptera,  
Coleoptera, Odonata, Diptera, Lepidoptera, Hemiptera and Hymenoptera

VERMES —Practical study of the external features of the earthworm  
Dissection of the earth-worm Study of cross-section of the earth-worm  
for arrangement of chief organ systems only Mode of locomotion and  
respiration

MOLLUSCA —Practical study of the external features and mode of  
locomotion and respiration, of the fresh-water clam, comparison in these  
respects with the snail

PROTOZOA —A practical study of the living amoeba or paramoecium

CHORDATA —

PISCES —Practical study of the external features, chief visceral organs  
circulation and respiration of some common fish

AMPHIBIA —Practical study of the frog under the following headings  
(a) external features, (b) the skeleton, (c) the organs of respiration, cir-  
culation, digestion and excretion, (d) the central nervous system, (e) the  
attachment and action of a muscle of the hind leg Study of a cross-  
section of the frog for arrangement of organ systems Observation of the  
external features of the development of a frog or toad Comparison of a  
frog with a fish as to organs of locomotion, circulation and respiration

REPTILIA —Practical study of the external features of a snake and a  
turtle

AVES.—Practical study of the external features, plumage and skeleton  
of some common bird Adaptions to flight with special reference to the  
form, skeleton, and organs of respiration

Chief types of bills and feet

MAMMALIA —Practical study of a (a) chief features of the skeleton,  
(b) organs of respiration, circulation, digestion and excretion, of a rabbit or  
a cat

Comparison of the brain of a rabbit (or cat) with that of a bird, and of  
a frog

Study of mammalian eye from a specimen or from a model

NOTE —Except in the case of the frog and of the earthworm where  
dissection is required, prepared specimens or models may be used The  
cross-sections of the frog and of the earthworm should be studied with the  
low power microscope

## BOTANY

EXPERIMENTAL PHYSIOLOGY —Practical studies of absorption (osmosis),  
plasmolysis, transpiration, photosynthesis, respiration, irritability (*e.g.*,  
heliotropism), and rate of growth

**MORPHOLOGY AND PHYSIOLOGY**—Structure and general functions of the following plant organs leaf, root, stem, flower, seed, fruit Modification of roots, stems, and leaves for the special functions of storage and support Light relations of leaves Stipules, spines and bud-scales Underground stems, comparison of roots and stems Pollination and adaptations for cross-pollination Fertilization, seed dispersal, vegetation reproduction as contrasted with sexual reproduction Study of typical seeds Classification of fruits A study by means of sections of the cellular structure of the leaf and of the relative arrangement of the more important tissues and tissue systems of the stem and root of bean and maize, or of any other typical dicotyledon and monocotyledon

**CRYPTOGAMS**—The practical study of representatives of the chief subdivisions of the cryptogams spirogyra, a mushroom, a lichen, a liverwort, a moss, a horsetail, a clubmoss, and a fern Distribution and economic importance of yeasts and bacteria Microscopic structure of the yeast plant Microscopic observation of a bacterial colony

Recognition, economic importance and control of the following parasitic fungi grain rust, loose smut of oats or corn smut, apple scab and black knot

**PHANEROGAMS**—The practical study of representative of the seed plants of the locality, including at least one member of each of the following orders Coniferae, Gramineae, Liliaceae, Ranunculaceae, Cruciferae, Rosaceae, Leguminosae, Sapindaceae, Umbelliferae, Labiatae, Scrophulariaceae, Compositae

**ECOLOGY**—*Relation of the structure of plants to their environment* Plant associations, e g, mesophytes, hydrophytes, xerophytes Characteristics of these classes

**CLASSIFICATION**—The placing of the types studied in their natural divisions, characteristics of these divisions

Comparison of the ecological with the structural classification





FACULTY OF ARTS

## DEGREE OF BACHELOR OF ARTS

### I COURSES LEADING TO THE DEGREE

1 A candidate for the degree of Bachelor of Arts must take one of the courses prescribed by the University

2 The courses for the degree of Bachelor of Arts extend over a period of four academic years

3 Unless specially exempted by the Council, every undergraduate proceeding to the degree must be in attendance on lectures at the University and at one of the Colleges throughout the session in all the subjects of his academic year. The Arts Colleges in the University are University College, Victoria College, Trinity College, and St Michael's College. Information regarding the relation of the Colleges to the University will be found on page 30

4 Unless in exceptional cases and by special petition to the Council, a student will not be allowed to register in more than one course

5 The courses leading to the degree of Bachelor of Arts are

(a) THE PASS COURSE

(b) The following Honour Courses

CLASSICS	PSYCHOLOGY
GREEK AND HEBREW	MATHEMATICS
ORIENTAL LANGUAGES	MATHEMATICS AND PHYSICS
ORIENTAL LANGUAGES (GREEK OPTION)	PHYSICS
FRENCH GREEK AND LATIN	BIOLOGY
MODERN LANGUAGES	PHYSIOLOGY AND BIOCHEMISTRY
ENGLISH AND HISTORY	BIOLOGICAL AND MEDICAL SCIENCES
MODERN HISTORY	CHEMISTRY AND MINERALOGY
POLITICAL SCIENCE	CHEMISTRY
PHILOSOPHY	GEOLOGY AND MINERALOGY
PHILOSOPHY (ENGLISH OR HISTORY OPTION)	SCIENCE (GENERAL)
	HOUSEHOLD SCIENCE
	HOUSEHOLD ECONOMICS

### ADMISSION TO THE PASS COURSE

6 A candidate for admission to the First Year of the Pass Course must present certificates giving him credit for complete Pass Matriculation

7 A candidate for admission who presents, in addition to complete Pass Matriculation, certificates giving him credit at the Honour Matriculation examination in all or all but one of the subjects of the First Year of the Pass Course may be admitted to the Second Year of that Course, a candidate who lacks credit for one subject will be required to pass the First Year or equivalent examination in that subject before he will be allowed to register in the Third Year. A candidate who has not complete Pass Matriculation standing may be admitted to the Second Year of the Pass Course if he presents certificates giving him credit at the Honour Matriculation examination in ALL the subjects of the First Year. The prescribed fee for such admission to the Second Year is fifteen dollars.

#### ADMISSION TO AN HONOUR COURSE

8 Every student applying to enter the First Year of an Honour Course must present, in addition to complete Pass Matriculation standing, certificates giving him credit (see Section 13) at the Honour Matriculation or equivalent examination in the *five* subjects prescribed below for the Honour Course which he wishes to enter.

NOTE—The term "*additional subject*" includes any one of English, History, Greek, French, German, Italian, Spanish, Trigonometry, Physics, Chemistry, Biology.

CLASSICS—Greek, Latin, Mathematics (Algebra and Geometry), together with two additional subjects, one of which should be French or German.

GREEK AND HEBREW—Greek, Latin, Mathematics (Algebra and Geometry), one of English, French, German, together with an additional subject.

FRENCH GREEK AND LATIN—Latin, Mathematics (Algebra and Geometry), two of Greek, English, French, together with an additional subject.

MODERN LANGUAGES—Latin, French, Mathematics (Algebra and Geometry), one of German, Italian, Spanish, together with an additional subject.

ENGLISH AND HISTORY—Latin, Mathematics (Algebra and Geometry), two of Greek, English, French, German, together with an additional subject.

\*MODERN HISTORY { Latin, Mathematics (Algebra and Geometry),  
History, French or German, together with an  
additional subject

\*POLITICAL SCIENCE {  
\*PHILOSOPHY—Latin, English, Mathematics (Algebra and Geometry),  
one of History, Greek, French, German, Physics, together with an  
additional subject

\*A student may qualify for admission to the Second Year of this course by obtaining complete standing at the First Year examination in the Pass Course with an average of sixty-six per cent in at least four subjects.

PHILOSOPHY (ENGLISH OR HISTORY OPTION) —Latin, Mathematics (Algebra and Geometry), one of History, English, Physics, one of Greek, French, German, together with an additional subject

PSYCHOLOGY —Latin, Mathematics (Algebra and Geometry, Trigonometry), French or German, and one of Physics, Biology, Chemistry

MATHEMATICS	{	Latin, Mathematics (Algebra and Geometry, Trigonometry), Physics, and French or German
MATHEMATICS AND PHYSICS		

PHYSICS	{	Latin, Mathematics (Algebra and Geometry, Trigonometry), French or German, and one of Physics, Biology, Chemistry
BIOLOGY		
PHYSIOLOGY AND BIOCHEMISTRY		
BIOLOGICAL AND MEDICAL SCIENCES		
CHEMISTRY AND MINERALOGY		
CHEMISTRY		
GEOLOGY AND MINERALOGY		
SCIENCE (GENERAL)		
HOUSEHOLD SCIENCE		

HOUSEHOLD ECONOMICS —Latin, Mathematics (Algebra and Geometry), two of English, French or German, Physics, Biology, Chemistry, together with an additional subject, the candidate is recommended to take French or German and a science

9 A student may apply for admission to the First Year of an Honour Course if he has obtained complete standing in the Pass Course of the First Year, and has met the entrance requirements of the Honour Course as laid down in the above Section, at either the First Year or Honour Matriculation Examination. The student's attention is drawn to the fact that standing in General Science of the First Year will not be accepted as the equivalent of credit at Honour Matriculation in a Science

## II MATRICULATION

10 The subjects of Pass Matriculation are Latin, English, History, Mathematics and any two of the following—Greek, French, German, Spanish or Italian, Experimental Science or Agriculture. Two papers are set in each subject

11 A candidate for Pass Matriculation will be allowed to write on one or more papers at a time in any order and on obtaining at least fifty per cent of the marks assigned to any paper will be given credit for having passed in such paper

12 The subjects of Honour Matriculation are Greek, Latin, English, French, German, Spanish, Italian, History, Mathematics (Algebra, Geometry, Trigonometry), Physics, Chemistry, Biology (Botany, Zoology).

13 A candidate for Honour Matriculation will be allowed to write on one or more papers at a time in any order, and will be given credit for a subject on obtaining at least fifty per cent in each paper of that subject, not necessarily at one examination

14 Certificates of examinations recognized as equivalent in value to the Ontario Matriculation, Pass or Honour, may be accepted as far as they meet the Ontario requirements in subjects and percentages. A candidate applying for admission on such certificates must submit an official statement of the marks upon which these certificates were awarded

15 The regulations respecting Matriculation together with a schedule of examinations which may be accepted as equivalent are to be found in the Curriculum for Matriculation

### III PROCEDURE FOR ADMISSION

#### (a) GENERAL CONDITIONS

16 A candidate for admission should apply to the Registrar of the University for a form of application for admission, he is required to fill out this form and return it to the Registrar not later than September 10th together with the following (a) all Pass and Honour Matriculation or equivalent certificates which he may hold, see Section 14, (b) any other evidence of ability to take the work proposed, (c) certificate of good character

17 Each application for admission will be considered by the Committee on Admissions, and the candidate will be notified of their decision at as early a date as possible. **A Candidate is strongly recommended to await the decision of the Committee before leaving for Toronto**

#### (b) ENTRANCE AT THE FIRST YEAR

18 Applications for admission to the First Year will be considered from the following classes of students

(a) The student who has obtained complete credit for the subjects of Pass and Honour Matriculation required for admission to the course which he desires to enter. See Sections 6, 8 and 9. Such a student when admitted becomes an UNDERGRADUATE in the Faculty of Arts

(b) The student who presents other than Ontario certificates accepted by the University as covering the required subjects of Pass and Honour Matriculation. Such a student when admitted will be ON PROBATION and will not be allowed to enter the Second Year until he has passed in full the examination of the First Year, he will then be granted the standing of an undergraduate in the Faculty of Arts. For a list of equivalent certificates see the Matriculation Curriculum. See Section 33

(c) The student who has not obtained complete credit for the subjects of Honour Matriculation required for admission to an Honour Course

Such a student, if admitted, will be ON PROBATION See Sections 33, 34 and 35

NOTE:—Applications will not be considered from students, except those mentioned in Section 18(d), who have not obtained credit for at least the subjects of Pass and Honour Matriculation required for admission to the Pass Course

(d) The student of mature age who has not obtained complete credit for the required subjects of Pass and Honour Matriculation Such a student, if admitted, will be ON PROBATION and will not be allowed to enter the Second Year until he has complied with all the conditions which the Council of the Faculty of Arts may impose See Section 33

(e) The student who is not proceeding to a degree in Arts, *i.e.*, an OCCASIONAL student The application of such a student will be considered only when recommended by the staff in the department in which he wishes to enroll Except by special permission of the Council an occasional student must pass the term and final examinations in a subject in which he may be enrolled before he can be allowed to enroll in that subject for the next higher year

19 A student applying for admission to the First Year as an undergraduate must have completed the sixteenth year of his age on or before the first of October of the session in which he applies for registration An occasional student must have completed the nineteenth year of his age on or before the same date

#### (c) ENTRANCE AT THE SECOND YEAR

20 A candidate for admission who presents, in addition to complete Pass Matriculation standing, certificates giving him credit at the Honour Matriculation examination in all or all but one of the subjects of the First Year of the Pass Course may be admitted to the Second Year of that Course, a candidate who lacks credit for one subject will be required to pass the First Year or equivalent examination in that subject before he will be allowed to register in the Third Year A candidate who has not complete Pass Matriculation standing may be admitted to the Second Year of the Pass Course if he presents certificates giving him credit at the Honour Matriculation examination in ALL the subjects of the First Year The prescribed fee for such admission to the Second Year is fifteen dollars

21 The only courses open to a student entering on such certificates at the Second Year are the Pass Course, and on conditions to be determined by the Council the Honour Courses in Modern History, Political Science and Philosophy

22 A student applying for admission to the Second Year as an undergraduate must have completed the seventeenth year of his age on or before the first of October of the session in which he applies for registration

## (d) ADMISSION AD EUNDEM STATUM

23 An undergraduate of another University may be admitted *ad eundem statum* on such conditions as the Senate on the recommendation of the Council of the Faculty may prescribe

24 An applicant for admission *ad eundem statum* must submit with his petition (1) a calendar of his University giving a full statement of the courses of instruction, (2) an official certificate of character and academic standing

25 Such an applicant may not compete for scholarships at his first examination if admitted to a standing lower than that held in his own University, but, if he obtain standing at this first examination he shall subsequently enjoy all the rights and privileges of an undergraduate of his University

## IV REGISTRATION AND ENROLMENT

26 Every student in attendance proceeding to a Bachelor's degree in the Faculty of Arts is required to register in the University and to enrol in University College, or Victoria College, or Trinity College, or St Michael's College

27 Application for registration in the University, whether by mail or in person, should be made at as early a date as possible and not later than September 10th, and registration in the University together with enrolment in the College must be completed on or before September 30th, 1924 See Sections 16 and 17 **Neglect of early application will result in delay and inconvenience to the student.**

28 Enrolment with the instructors of the University and of the Colleges will begin at 9 a m on Saturday, September 27th, and must be completed by the student in person by 5 p m on Tuesday, September 30th, 1924

29 After September 30th no student will be allowed registration for the whole or part of the session 1924-25, without the consent of the Council

30 Every petition for registration subsequent to September 30th must be accompanied by a sum of money reckoned at one dollar per diem for each day after September 30th For sufficient cause the whole or part of such a sum may be refunded

31 A student who has not enrolled in a subject or subjects on or before September 30th, may, at the discretion of the head of the department concerned, be refused admission to the classes or laboratories, until he shall have satisfied the head of the department that he is competent to proceed with the class In order to qualify himself for admission such a student may be required to obtain tuition at his own expense



32 Unless special permission is granted by the Council, on the recommendation of his College, a student of the First Year who has failed to obtain standing at the annual examination sufficient to admit him to the Second Year, will not be allowed to repeat the year

## V STUDENTS ON PROBATION

33 A student who has been admitted under Section 18 (b) or 18 (c) or 18 (d) or a student who, having failed to obtain standing, is permitted to repeat a year, will be admitted on probation only, and will be allowed to register for the Easter Term, only on the recommendation of his College after consultation with the staff in each of the subjects in which he is enrolled, and with the consent of the Council

34 A student on probation admitted to the First Year of an Honour Course must obtain standing at the Pass examination of the First Year in any subject in which his Honour Matriculation credits fall short of the prescribed entrance requirements, before he will be allowed to enter the Second Year

35 A student admitted on probation to an Honour Course of the First Year will not be allowed by the Council to enroll in any subject beyond the requirements of his course except on the recommendation of his College and of the Department in which he is enrolled on probation

## VI REGULATIONS RELATING TO STUDENTS IN ATTENDANCE

36 No student will be allowed to continue in attendance, whose presence is deemed by the Council of the Faculty to be prejudicial to the interests of the University

37 Students proceeding regularly to the degree are required to attend the courses of instruction and the examinations in all subjects prescribed for students of their respective standing, and no student will be permitted to remain in the University who persistently neglects academic work

38 Unless special permission is granted by the Council, a student who, at the close of two sessions in the University, has failed to secure standing in his year, will not be permitted registration in the Faculty of Arts

39 The Students Administrative Council has been entrusted by the Caput with supervision of the conduct of the students, and has power, subject to the approval of the Caput, to deal with violations of the regulations governing conduct

40 Any student who may be convicted of having taken part in a parade or procession through the city which has not been authorized by the police authorities after application by the Executive of the Students Administrative Council, will be severely disciplined

41 All interference on the part of any student with the personal liberty of another by arresting him, or summoning him to appear before any unauthorized tribunal of students, or otherwise subjecting him to any indignity or personal violence, is forbidden by the Caput

42 A student who is under suspension, or who has been expelled from a College or from the University, will not be admitted to the University buildings or grounds

43 The constitution of every University society or association of students in the Faculty of Arts and all amendments to any such constitution must be submitted for approval to the Caput. All programmes of such societies or associations must, before publication, receive the sanction of the Caput through the President. Permission to invite any person not a member of the faculty of the University to preside at or address a meeting of any society or association must be similarly obtained

44 The name of the University is not to be used in connection with a publication of any kind without the permission of the Caput

## VII FEES

For the schedule of fees see page 163

## VIII PHYSICAL TRAINING

45 By order of the Board of Governors each male student proceeding to a degree must take Physical Training in the first and second years of his attendance. He must first undergo a medical examination by the Director of the University Health Service in order to determine the character of his training. Students of all years who wish to take part in any form of athletics or physical exercise, must first undergo a medical examination by the Director

46 Each woman student proceeding to a Bachelor's degree and enrolled in University College shall be required, during the first year of her attendance, to take Physical Training following upon an examination by the Medical Advisor for Women. The women students registered in Victoria, Trinity and St. Michael's Colleges are under the direction of their respective Colleges with respect to Physical Training

47 The student who has failed to complete satisfactorily the course in Physical Training prescribed for the First Year, will not be permitted to register in the Third Year, and the student who has failed to complete satisfactorily the course in Physical Training prescribed for the Second Year, will not be permitted to register in the Fourth Year

48 The student who has neglected to complete satisfactorily the course in Physical Training of the First or Second Year and who, under Section 47, must take this work during the Second or Third Year respectively of his course, will be required to pay a supplemental fee of \$10 in addition to the prescribed Physical Training fee

## IX EQUIVALENT EXAMINATIONS—FIRST YEAR

49 Certificates of having passed the whole or a part of the following examinations *may* be accepted *pro tanto* for Pass Course subjects but not for the individual papers of a subject at the examination of the First Year or Senior Matriculation. Before exemption is granted on any of the certificates mentioned in this Section, a candidate may be required to satisfy the authorities of the University, and of his College, as to the equivalence of the examinations for which exemption is sought. See section 76 and footnote.

## PROVINCE OF ONTARIO

The Honour Matriculation Examination and the Upper School Examination or examinations of the same standard under other titles.

## PROVINCE OF NOVA SCOTIA

Grade XII Examination

## PROVINCE OF MANITOBA

Grade XII Examination

## PROVINCE OF BRITISH COLUMBIA

Senior Matriculation Examination

## PROVINCE OF ALBERTA

Grade XII Examination

## PROVINCE OF SASKATCHEWAN

First Class Diploma or Senior Matriculation

## NEWFOUNDLAND

Associate in Arts (Senior) Examination

## GREAT BRITAIN

The local Examinations for Senior students, conducted by the Universities of Oxford and Cambridge.

50 A candidate submitting any of the certificates mentioned in the preceding section must submit an official statement of the marks on which the certificate was obtained.

51 In view of the recent change in the standard for passing in the Pass Course only those certificates which meet these conditions as to subjects and percentages will be accepted. Exemption will not be given in part of a subject of the First Year, *e.g.*, credit in Geometry alone will not be accepted, a student must have passed in both Algebra and Geometry to be given exemption in Mathematics.

52 The Council will consider applications for the recognition of certificates other than those mentioned.

53 A candidate presenting *pro tanto* certificates is eligible for scholarships and for ranking in Honour Courses, but he is not eligible for grading in the Pass Course if he claims exemption in more than two subjects.

## X COURSE FOR DEGREE—TEACHERS CLASSES

54 In order to assist teachers and others who desire to proceed to the degree of Bachelor of Arts, provision has been made for their instruction by 1, Teachers' Classes during the regular session, 2, (a) supervision during the academic year, and (b) the Summer Session

55 The Pass Course according to the following scheme will be the basis of instruction

<i>First Year</i>	English, Latin, French, General Science, Mathematics (Algebra, Geometry and Trigonometry) and one subject from Group 6, page 160
<i>Second Year</i>	English or Mathematics I, French, Science, History, Economics or Psychology
<i>Third Year</i>	English, French or Mathematics I, Science, History, Economics or Ethics
<i>Fourth Year</i>	English, French or Mathematics I, Science, History, Economics or History of Philosophy

56 Persons desiring to enter this course are required to present Honour Matriculation or equivalent certificates covering all or all but one of the subjects of the First Year The prescribed fee for entrance at the Second Year is \$15

57 The subjects of the Second Year are divided into two groups, which are given in alternate years The subjects for 1924-25 are History, Psychology or Political Economy, and Science

58 The subjects of the Third Year are divided into two groups, which will be given in alternate years The subjects for 1924-25 are History, French, and Science

59 The subjects of the Fourth Year for 1924-25 are History, French, and Science

60 These courses are open to persons actually engaged in teaching and to such others as have been approved by the Council In all cases application for admission must be made to the Registrar of the University through the Director of University Extension Only under exceptional circumstances will a candidate be allowed to attend classes in more than three subjects during one session of the Teachers' Course

61 A student proceeding to the degree shall on or before *October 1st* of each year submit a statement of the work which he proposes to take (a) in the Teachers' Classes or (b) under supervision preparatory to the Summer Session, and on or before *May 15th* of each year, a similar statement of the work he desires to take during the Summer Session

62 A student will receive credit for each subject in which he secures fifty per cent

63 A student will not receive credit for a subject of a higher year until he has passed the examination of the lower year in the same subject. He may, however, be a candidate for examination in the work of two successive years in the same subject.

64 A student who has not been granted complete First Year standing may not enter upon the work of the Third Year, nor a student who has not been granted complete Second Year standing, upon the work of the Fourth Year.

65 Pursuant to Section 124 of the Revised Statutes of Ontario, 1913, in the case of a candidate for the degree of Bachelor of Arts, registered in the Teachers' Course, enrolment in one of the Arts Colleges shall not be necessary.

66 Instruction during the regular session will be given as far as possible to meet the convenience of the members of the classes residing in Toronto and its immediate vicinity. Instruction during the regular session is also provided, as far as possible, in other centres in the Province where a sufficient number of teachers, or others employed during the day, may be enrolled.

67 The Summer Session is held during July and a part of August, and is open (a) to persons engaged in teaching, (b) to such others as have been approved by the Council of the Faculty of Arts, and (c) to regular students who have failed to receive credit in one or at most two subjects of the Pass Course, provided always that instruction in such subjects has been arranged for at that Summer Session.

68 The work of the Second, Third, and Fourth Years of the Teachers' Course may be covered in five years and will involve (a) attendance on Teachers' Classes during four regular sessions or (b) attendance for four Summer Sessions and supervision during four regular sessions.

69 Instead of completing his course under this plan a candidate proceeding to the degree is advised to attend the regular courses of instruction in the Fourth Year, in which case the fourth Summer Session is not compulsory. Students are advised to acquaint themselves with the regulations of the Department of Education respecting High School Assistants' certificates. See page 160.

70 A candidate will not be allowed to present himself for examination in any subject until he has attended one Summer Session and has had supervision of his work during one academic year, or until he has attended Teachers' Classes in that subject during one regular session or until he has completed the necessary minimum of attendance. See Section 68.

71 Supervision of work should precede the Summer Session, but as such supervision may follow class instruction, assistance in the work of either group of the Second Year or of the Third Year will be provided.

## XI CONDITIONS FOR ACADEMIC STANDING

## CREDIT IN PASS SUBJECTS

72 To receive credit in a Pass Subject, a candidate must obtain at least fifty per cent of the examination marks, as well as fifty per cent of the aggregate of the term and examination marks in that subject, but where he has at one examination obtained an average of sixty per cent of all the marks assigned to the Pass subjects of his annual examination, forty per cent will (subject to the provisions of Section 95) be accepted in one or at most two subjects in lieu of the fifty per cent required above

73 At supplemental examinations fifty per cent in each subject will be required

74 In the First and Second Years a candidate who has failed to receive credit in one of a group of optional subjects may with the approval of the Council present himself at the supplemental examinations in any other of the alternative subjects, except in the case of those subjects in which term work is an integral part of the subject In such a substitution, however, the candidate must, unless exempted by the Council, comply with all the conditions respecting term work, & c, there can be no transfer of term marks from the subject originally chosen to that substituted

75 A successful candidate in a subject is graded as "A" or "B" or "C" or "Below the Line (B L)" according to the percentage obtained in the subject For grade "A", a candidate must obtain at least seventy-five per cent, for grade "B", at least sixty-six per cent, for grade "C", at least fifty per cent of the marks assigned to a subject, provided he has obtained at least fifty per cent of the examination marks in the subject For grade "B L" he must obtain at least forty per cent of the marks assigned to a subject

## STANDING IN THE PASS COURSE

76 A candidate will be granted standing at an annual examination, provided he obtains credit under Section 72, in at least four of the subjects proper to his year At the examination of the First Year, however, a candidate who has \*exemption in two or three subjects must obtain credit under Section 72 in all or all but one of the remaining subjects

77 A candidate who is required to take six subjects in the First Year, and who has failed in two of these subjects, must obtain credit for at least one of them before he can register in the Second Year

78 A candidate must obtain complete standing in the First Year before he can register in the Third Year, and he must obtain complete standing in the Second Year before he can register in the Fourth Year

\*Except under special circumstances and on the recommendation of his College, a student of the First Year may not claim exemption in more than three subjects, and so must attend lectures and write examin-

79 A candidate who obtains an average of at least seventy-five per cent of all the marks assigned to the \*subjects proper to his year will be awarded Grade A standing in his course, a candidate who obtains an average of at least sixty-six per cent will be awarded Grade B standing, and a candidate who obtains an average of at least sixty per cent will be awarded Grade C standing

#### CREDIT IN HONOUR SUBJECTS

80 A candidate who obtains at least seventy-five per cent of the marks assigned to an Honour subject will be awarded First Class Honours, a candidate who obtains at least sixty-six per cent will be awarded Second Class Honours, a candidate who obtains at least sixty per cent will be awarded Third Class Honours, and a candidate who obtains at least fifty per cent will be ranked as "Below the Line"

81 No candidate will be given credit in an Honour subject where term work is taken into account, unless he obtain at least fifty per cent of the marks at the May examination, as well as fifty per cent of the aggregate of the term work and examination marks in that subject

82 A candidate who fails to obtain fifty per cent in an Honour subject, may be granted pass standing therein

#### STANDING IN HONOUR COURSES

83 In order to obtain standing in an Honour Course, a candidate must have obtained (a) at least fifty per cent in each Honour subject of the course as well as (b) credit as defined in Section 72 in all, or all but one of the Pass subjects attached thereto

84 A candidate in the Fourth Year who fails to obtain standing in his Honour Course may on recommendation of the examiners be awarded a Pass degree Such a candidate may accept the award or may repeat the year and again compete for Honours

85 A candidate, who has fulfilled the conditions of Section 83, will be awarded First Class Honours in order of merit provided he has obtained an average of seventy-five per cent of all the marks assigned to the Honour subjects of his course, such a candidate will be awarded Second Class Honours in order of merit provided he has obtained an average of at least sixty-six per cent, such a candidate will be awarded Third Class Honours provided he has obtained an average of at least sixty per cent, and such a candidate will be ranked as "Below the Line" provided he has obtained less than sixty per cent

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\*In the First Year, students who write on four subjects only or less, will not be graded in the Course

86 A candidate in an Honour Course, who has failed in two Pass subjects, will have his standing deferred both in the Honour Course and in the individual subjects thereof until he has passed in both Pass subjects, he will be debarred from registration and enrolment in the higher year until he has passed in at least one of these and has fulfilled the conditions of Section 90

87 A candidate in an Honour Course will not be granted standing in his year if he fail in more than two Pass subjects

88 A candidate of the First or Second Year who fails to secure standing in an Honour Course may be transferred to the Pass Course on such conditions as the Council may impose. Such a candidate may accept the award or may repeat the year and again compete for Honours

89 A candidate in an Honour Course of the Third Year who fails to secure standing must repeat the Year, unless he be transferred to the Pass Course by the Council on the special report of the Board of Examiners

90 A candidate must obtain complete standing in the First Year before he can register in the Third Year, and he must obtain complete standing in the Second Year before he can register in the Fourth Year

#### TERM WORK

91 In the Pass Course, reports on the term work of every student proceeding to a degree will be made in all the subjects of each year, except in purely lecture courses where the Council, on the recommendation of the teaching staff, may have approved the omission of such reports

92 The marks for term work in a subject of the Pass Course will be determined in the manner considered most suitable by the teaching staff in that subject

93 In all subjects of the Pass Course, the ratio of term marks to examination marks will be as fifty to one hundred, except in English where the ratio is as one hundred to one hundred

94 When a candidate fails to secure credit in a Pass subject, other than English or a Science of the Second, Third and Fourth Years, because of a deficiency in term marks he must either (1) earn a new term mark under conditions to be determined by the staff in the subject, and repeat the examination or (2) make up the deficiency of term marks by obtaining a corresponding increase in his examination marks

95 A candidate whose term work in English is deficient, or who obtains less than fifty per cent of the marks assigned to the term work in any one of the Pass Sciences of the Second, Third and Fourth Years must obtain a satisfactory term mark under conditions to be determined by the staff concerned, and subsequently must pass a supplemental examina-



96 In the Honour Courses, reports in term work will be made wherever such work is specified as a part of the course

97 In an Honour Course, the ratio of term marks to examination marks in a subject will be determined by the staff in that subject

98 A term examination shall not, unless it be so specified in the calendar, take the place of the Annual Examination in May on any portion of the prescribed work of an Honour Course

#### CONDITIONS OF ENTRANCE TO THE VARIOUS YEARS

99 In order to proceed in an Honour Course in the Second Year a candidate at the examination of the First Year (1) must have fulfilled the conditions of Section 83, (2) must, if his standing is deferred, have fulfilled the conditions of Section 86, and (3) in the case of a student on probation must have fulfilled the conditions of Section 34

100 In order to proceed in an Honour Course in the Third Year, a candidate at the examination of the Second Year (1) must have fulfilled the conditions of Section 83, (2) must have complete First Year standing, and (3) must, if his standing is deferred, have fulfilled the conditions of Section 36

101 In order to proceed in an Honour Course in the Fourth Year, a candidate at the examination of the Third Year, (1) must have fulfilled the conditions of Section 83, (2) must have complete Second Year standing, and (3) must, if his standing is deferred, have fulfilled the conditions of Section 86

#### REPEATING THE YEAR

102 A student who has been granted standing in any year of the Pass Course may on conditions to be determined by the Council repeat that year in an Honour Course, and on obtaining standing, may proceed therein See Section 9

103 A candidate in any course who for any cause is debarred from the higher year, may repeat the whole examination in the following May, but is not eligible for scholarships, medals, or prizes

#### XII EXAMINATIONS

104 No candidate will be admitted to examination unless the Head of the College in which he is enrolled certifies that he has complied with all the requirements of that College affecting his admission to such examination

105 A candidate will not be admitted to an examination unless he has paid all the fees due from him A candidate who fails to pay his examination fees on or before March 15th—the last day for receiving fees prior to the May examination—must pay an additional fee of one dollar

106 A candidate who fails to send his "application for examination" by the day appointed for receiving such applications must pay an additional fee of one dollar

107 No candidate in a course involving practical work in a laboratory will be admitted to examination if the Professor under whom his work is carried on reports that he has neglected his laboratory work or signally failed in the practical examinations

108 Representations on the part of candidates with regard to the May examination and applications for consideration on account of sickness, domestic affliction, or other causes, must be filed with the Registrar before May 24th. In the case of the June or September examination such applications must be filed with the Registrar **before the close of the examination**

#### THE MAY EXAMINATION

109 The May examination is held at the University and is open to candidates of all the Years in the Pass Course and in all the Honour Courses

110 Arrangements will be made, whenever possible, to allow a graduate, who is engaged in teaching in Ontario and who desires to receive credit in subjects not taken during his undergraduate course, to take such examinations in his own locality

111 If the time-table permits, a candidate may present himself for examination in subjects in which he has previously failed to receive credit

112 In the case of Fourth Year candidates, where there is a conflict in the time-table, a special supplemental examination may be arranged

113 A candidate for examination is required to send an application, according to a printed form, to the Registrar not later than March 15th

#### THE JUNE EXAMINATION

114 The June Examination, which is held at the University and at such centres as may from time to time be authorized by the Council of the Faculty, is exclusively for candidates for Senior Matriculation in the Pass Course

115 A candidate for this examination is required to send an application, according to a printed form, to the Registrar not later than May 1st

116 The presiding examiner or examiners at a local Senior Matriculation examination will be appointed by the Council of the Faculty, and should, if necessary, be competent to conduct an examination in French or German Dictation

117 The expenses in connection with such local Senior Matriculation examination must be met by the candidates at the centre or by the authorities of the school or college on whose application the examination is held

#### THE SEPTEMBER SUPPLEMENTAL EXAMINATION

118 The September Supplemental examination is held at the University, and is open (1) to candidates who obtained standing at the May or June examination but who failed in one or, in some cases, two Pass subjects, and (2) to candidates in any year of the Pass Course who were prevented by sickness, domestic affliction or other causes beyond their control, from attending the May Examination. The latter candidates must prove to the satisfaction of the Council the sufficiency of the alleged cause of absence not later than June 15th

119 If feasible this supplemental examination will be held at Winnipeg, Regina, Saskatoon, Edmonton, Calgary and Vancouver. The candidate for whom such an examination is held must meet the expenses incurred and should make early application for the privilege

120 A candidate for this examination is required to send an application, according to a printed form, to the Registrar not later than August 1st

## GENERAL INFORMATION

### THE UNIVERSITY AND THE COLLEGES

In the Faculty of Arts of the University there are four Colleges—University College, Victoria College, Trinity College and St Michael's College, and every student registered in the Faculty must enrol in one of these Colleges.

Each College gives instruction to its students in the following subjects: Greek, Latin, Ancient History, Oriental Languages, English, German, French, Ethics and \*Religious Knowledge. Instruction in the remaining subjects of the curriculum—Italian, Spanish, Modern History, Political Economy, Law, Philosophy, Psychology, Mathematics, the Sciences, World History and Military Studies—is given by the University.

The annual examinations are conducted by the University, which also grants academic standing upon the results of these examinations and confers the degree upon the successful completion of a prescribed course of study.

### THE LIBRARY

The University Library is contained in a building of its own, situated on the east side of the campus that lies to the south of the Main Building. All students who have paid a library fee to the Bursar of the University are entitled to the privileges of the Library. Besides Reading Rooms the building contains Departmental Studies, which may be used as study-rooms by honour students in the various branches in which the Professors hold seminary courses, and private studies, intended for members of the Faculty or advanced students engaged in research work. The Library is opened at 8.45 every morning and remains open until 10 at night during the academic term. Books in ordinary use may not be taken out of the building during the daytime, but are lent for the night toward 5 p.m., to be returned the following morning before 10 o'clock. Books not in general demand may, on application, be borrowed for a longer period. Failure to return a borrowed book at the proper time and other breaches of the regulations are punishable by fine or suspension from the privileges of the Library.

### ROYAL ONTARIO MUSEUM

#### ARCHAEOLOGY, GEOLOGY, MINERALOGY, PALAEOLOGY, ZOOLOGY

Students of the University in all departments are recommended to avail themselves of the privileges of the Museum, which, although under separate control, is intimately connected with the work of the University.

\*In University College, courses in Biblical History and Literature, given by the Staff in Oriental Languages, are prescribed in place of Religious Knowledge.

The Museum is open on all week days from 10 a m to 5 p m , Sundays 2 to 5 p m The Admission is free to the public on Tuesday, Thursday, Saturday and Sunday On other days an admission fee of fifteen cents is charged

By a resolution of the Board of Trustees all regular students of the University may be admitted free on all days of the week by presenting their card of registration

### HART HOUSE

Hart House, the gift of the Massey Foundation, is so called in memory of Mr Hart Massey In its widest interpretation it seeks to provide for all the activities in the undergraduate's life apart from the actual work in the lecture room It affords all the facilities of a first-rate club In the beauty of its architecture and the various functions which it performs it is unique on this continent

Hart House contains completely equipped club rooms, including common rooms, reading room, music room, lecture room, sketch room, photographic dark rooms, the Great Hall, used as a dining hall, a small chapel, rooms reserved for religious organizations in the University, gymnasia, squash courts, swimming pool, running track, rifle range, billiard room, library and Hart House Theatre

Hart House is open from 8 00 a m to 11 15 p m daily and meals are served in the Great Hall throughout the academic year Members are entitled to full privileges of all rooms in the building between these hours and the use of the gymnasia, pool, showers and locker rooms until 6 30 p m each day, except Sunday, subject to the regulations of the Athletic Association

The Library contains a good selection of books of general interest These books must not be taken from the room

Sunday Evening Concerts are given by the leading musicians of the city at 9 p m in the Great Hall on certain Sundays during the session and music recitals take place every Friday afternoon in the Music Room

The Sketch Room is equipped with facilities for drawing and painting Weekly drawing classes are given by a qualified instructor and monthly exhibitions of pictures and lectures on Art are arranged

A group of rooms is set apart for the use of the Faculty Union A dining room and a common room are also reserved for Graduate Members Five guest rooms are available for the use of guests, for periods of a week or less, at a reasonable charge

The Warden is entrusted with the general supervision of the whole house in co-operation with the following committees House, Hall, Library, Music, Billiard, Sketch, Camera and Squash These committees consist of two senior members, the Warden and a full representation of undergraduates The undergraduates are elected annually by their fellow students The Board of Stewards is the Senior Committee and has final control of the House, being directly responsible to the Board of Governors

It consists of the Warden (ex-officio chairman) and representatives of the President of the University, the Board of Governors, the Faculty Union, the Athletic Association, the Graduate Members, the Student Christian Association, the Students' Administrative Council and the undergraduate secretaries of all Standing Committees

Hart House Theatre is an Art Theatre in the University, existing to promote the interests of dramatic art in the widest sense. The theatre is operated by a Board of Syndics, who are responsible to the Governors of the University for its administration. It has always been the policy of the Syndics to encourage the use of the theatre by those recognized dramatic societies within the University which are endeavouring to do serious work. When it is possible to do so, without interfering with the legitimate activities of the Theatre, the Syndics will be glad to allow its use by other student organizations.

All male undergraduates proceeding to a degree in the University are members of Hart House. The annual fee of \$8.00 covers all fees in connection with Hart House and membership in the Athletic Association for the academic year (September to May). Membership Cards may be obtained at the Warden's Office on presentation of the Bursar's receipt for fees paid.

Hart House has no endowment whatsoever and is entirely dependant for its upkeep on the fees received from graduates and undergraduates and from various sources of revenue in the House itself.

Other male students in the University, or students in the affiliated or federated institutions receiving instruction in the University, may become members of Hart House on payment of the required fee at the Warden's office. Should the students of any of these institutions elect to join Hart House in a body the \$8.00 fee still obtains but for individual membership the fee is \$10.00.

Graduates are entitled to the full privileges of Hart House on payment of an annual fee of \$10.00. Out-of-town graduates may become members on payment of an annual fee of \$2.50.

## UNIVERSITY COLLEGE WOMEN'S UNION

79 ST. GEORGE STREET

Acting Dean of Women and Head of the Union, Mrs. M. M. Kirkwood, Ph.D.

Secretary, Miss A. Macdonald, B.A.

The Union contains common rooms, library and reading room, dining hall, rest room, and guest rooms for the use of members.

**MEMBERSHIP**—All women undergraduates of University College are members of the Union. Graduates may also belong. (For membership fee see Fees.)

MEALS are by flat rate or ticket

Flat rate per week	\$5 00
Breakfast (7 tickets)	2 00
Luncheon (5 tickets)	1 25
Dinner (7 tickets)	3 00

REGISTRATION—All women undergraduates in University College are required to register with the Acting Dean, at the beginning of term

BOARDING HOUSES—Women undergraduates who are away from home and not living in Queen's Hall or a College residence must have their boarding houses approved by the Dean. Students who need boarding houses are asked to communicate with her by letter after August 1st

## VICTORIA COLLEGE WOMEN'S STUDENT UNION

The Women's Student Union, situated in the South end of Annesley Hall, with entrance by the south-west gate, comprises a common room, library, committee room, tea room, kitchen and cloak rooms. These serve as common rooms for the women students of the College, and are the centre of their social activities. The rooms are available for committee meetings, discussion groups, Bible study classes, larger meetings, and class receptions. The Women's Undergraduate Association, under the supervision of the Dean's council, make the rules and regulations for the use of the rooms.

Cafeteria luncheon is served in the tea room.

For women students the fee is \$4 00, to be paid to the fees clerk of the College. The money so derived will be applied to the maintenance of the common rooms.

For further information please apply to the Dean of Women Students, Victoria College.

## RESIDENCES

### UNIVERSITY OF TORONTO

#### RESIDENCE FOR MEN

By the generosity of Mr and Mrs E. C. Whitney and other friends, the University can now offer to some hundred and fifty men the peculiar advantages of residential life and excellent accommodation within its own grounds. The Residence, opened in November, 1908, consists of three Houses situated on the north side of Hoskin Avenue, opening upon a quadrangle, the fourth side of which is formed by Devonshire Place. They stand about two hundred yards to the north of University College and close to Hart House. The buildings are known as the South, East and North Houses.

Each House contains twenty-four single rooms, one single suite, one double room and eleven suites, a suite comprising a study and two bedrooms. A large room in each building, with an open hearth, has been set aside as a common room. A lavatory with hot and cold shower baths is provided for every eight men. The buildings are heated by steam and lighted by electricity.

The University supplies the table, chairs, book-case, chiffonier, bed, mattress, pillows, linen and window shades for each room, it is prepared to furnish a desk-lamp for a nominal rental.

The rates are \$4.00 per week for a single room or half of a suite, and \$5.00 per week for a single suite. The rental for the Michaelmas Term is payable in advance in one instalment, that for the Easter Term is payable in two instalments—\$50.00 at the opening of the term and the balance on April 1st. Except under very special circumstances occupants vacating during a term will forfeit the rent paid. These charges cover heat, light, house-service, house-laundry, and the use of the telephone. There is no separate dining hall connected with the Residence, but board may be obtained at the adjacent University Dining Hall in Hart House.

Applications for rooms must be made in writing to the Secretary of the Residence Committee (address the Registrar's Office) and must be accompanied by a deposit of \$5.00. This deposit will be returned if the application is not granted, but will be forfeited if a room is assigned to the applicant and not taken by him, unless notice of his refusal of the room is received by the Secretary in writing before September 15th. It will be returned in full at the end of the College year if the room key is given back and the room and furniture left in a satisfactory condition. The following principles govern the allotment of rooms: (i) No student, who as a result of the annual Spring examinations is not assured of being able to proceed to a subsequent year, will be admitted into the Residence. Exception to this rule will be made in the case of a student in the Faculty of Medicine who has obtained standing at the May examination, but is debarred by the rules of that Faculty from proceeding to the subsequent year until he has passed his Supplemental examinations. Such a student will be assigned a room provisionally, but cannot occupy it unless he passes his Supplemental examinations in September. (ii) The rooms in each house will be distributed among the various Faculties and Years. (iii) A limited number of rooms will be reserved for members of the incoming First Year until September 12th. (iv) Applications will be considered in order of priority.

The University lays down three general rules, designed to prevent hazing, the use of intoxicants and gambling. The students in each House shall elect a House Committee, which is entrusted by the University with the making and enforcing of any other needed rules and with the maintenance of order. A member of the Faculty resides in each House to act as friend and adviser to the men in residence.



## QUEEN'S HALL, RESIDENCE FOR WOMEN,

NOS 4, 7, 9 QUEEN'S PARK

Superintendent, Miss Louise I Livingstone, B A

Accommodation is provided for 98 students The rate for room and board is \$9 50 per week and these dues must be paid to the Bursar four weeks in advance

Applications for rooms must be made in writing and a deposit fee of \$5 00 must accompany each application The fee will be returned if the application is not granted or if it is withdrawn before September 15th It will be returned in full at the end of the college course if the room is left in good condition and there are no breakages

Applications from First Year Students will be considered first, the other years in order of priority Those undergraduates who have supplemental examinations to write must be successful before they can be enrolled

The students elect a House Committee to assist the superintendent in the maintenance of order and for the general welfare of the household

## UNIVERSITY COLLEGE

RESIDENCES FOR WOMEN, 94 AND 85 ST GEORGE STREET

These two residences, accommodating respectively forty and twenty-five students, are connected with the University College Women's Union The rate for rooms is \$4 00 to \$5 00 a week, payable in advance by the month or term to the Bursar Meals are taken at the Union, the rate being \$5 00 a week Applications for residence are to be made to Mrs M M Kirkwood, 79 St George Street, Toronto, and are to be accompanied by a deposit of \$5 00, which will be refunded if the application is withdrawn before September 15th The deposit will be returned in full at the end of the College course if the room is left in good condition

## VICTORIA COLLEGE

THE RESIDENCE FOR MEN

There is accommodation in the four houses of the Residence for 132 undergraduates of Victoria College Each room is completely furnished as a combined study and bed room About 15 rooms have fire places There is a Common Room in each House The weekly charge to men in Residence for room and meals is from \$8 00 to \$9 00 The Dining Hall, known as Burwash Hall, is mainly for the use of students of Victoria College, but there is accommodation for a limited number of men from other Colleges and Faculties Students, other than those in Residence, may buy individual meal tickets, strip of tickets or board at a weekly rate of \$5.25 Applications for rooms and all inquiries should be addressed to the Dean of Residence, Victoria College

## RESIDENCES FOR WOMEN

The women students of Victoria College are housed in four buildings—Annesley Hall, South Hall, the Annex, Oaklawn, accommodating sixty-six, twenty-five, twenty-seven, and twenty-six students respectively. The houses are all near the College.

Applications for rooms must be accompanied by a deposit fee of \$10 00, which will be refunded if the application is withdrawn before September 1st. Fees for the year range from \$265 to \$400, according to the location of the room, and are payable half on October 1st and half on February 1st.

Additional fees are—medical examination \$2 00, nurse's fee \$10 00, use of laundry \$2 00. These charges are subject to change.

For further information kindly write to the Dean of Women Students, Victoria College, Queen's Park, Toronto.

## TRINITY COLLEGE

Trinity College provides residences for both men and women students. The men reside in Trinity College, in which there is accommodation for ninety students or upwards. The women reside in St. Hilda's College and St. Hilda's Lodge, in which together accommodation for fifty or more is provided.

## RESIDENCE FOR MEN

Excellent accommodation for men is to be found in the residence set apart for their use. Several members of the staff are resident in the building. The students' living rooms are so arranged that two students may room together, or a student may have a room to himself, as may be preferred. Details as to fees for room and board, which are maintained at the lowest rate consistent with first class service, will be sent on request. There is a students' common room, gymnasium—which is used also for basket-ball and boxing—a hockey rink, tennis courts, a large field for sports, and ample grounds surrounding the College buildings. College affairs affecting student life are arranged by the students themselves in the "College Meeting", which is formally organized and embraces all the students of the College under the chairmanship of the senior student, known as "Head of College."

Applications for rooms in College are to be made on a printed form provided for this purpose, and are received at any time after January 1st for the succeeding Michaelmas Term, being subject to withdrawal on written notice up to September 1st. Most of the rooms, being furnished partly by the College and partly by the occupants, may be fitted up to suit the taste of the individual student. Further information, with blank forms of application, will be supplied on request being made to "The Provost, Trinity College, Toronto."

## RESIDENCE FOR WOMEN

Excellent accommodation for the women students of Trinity is provided in St. Hilda's and St. Hilda's Lodge, both situated within the grounds of Trinity, about three minutes' walk from lecture rooms.

The buildings are well planned and the rooms attractive. Provision is made for tennis and basket-ball.

For information as to fees and academic qualifications for admission, also for blank forms of application, address The Provost, Trinity College, Toronto. Applications for residence are referred by him to the Principal, St. Hilda's, but no applications for residence can be accepted until the academic qualifications have been submitted to the Provost.

## ST. MICHAEL'S COLLEGE

For Catholic students St. Michael's now offers all the advantages peculiar to a Catholic College.

## RESIDENCE FOR MEN

There is accommodation for the men at St. Michael's College. Parents are most careful of the dangers and temptations to which students, away from home for the first time, are subjected. This is a point that St. Michael's chiefly considers, and she is in a position almost to guarantee that the student will be as safe in every way as if he were in his own home, in addition to receiving all the advantages of the University.

The residents are subjected to a reasonable rule with a view to careful supervision, and a solid moral and religious training. Constant and intimate intercourse between staff and student is a feature.

The health and development of body and mind is promoted by regulated hours of study and recreation. Opportunity is given for all kinds of athletic exercise. For terms and application, address "The Superior."

## RESIDENCE FOR WOMEN

For women students, St. Joseph's Convent, St. Alban's Street, and Loretto Abbey College, 385 Brunswick Avenue, are providing residences to meet in every way the wishes of all. Address "The Superior."

## ARGYLL HOUSE

## 100 QUEEN'S PARK

Accommodation for thirty women students is afforded by Argyll House. Applications should be made to the Secretary of the Argyll House Committee, 79 St. George Street, Toronto, from whom terms of residence may be obtained.

## STUDENTS ADMINISTRATIVE COUNCIL

The Students Administrative Council has been entrusted by the Caput with supervision of the conduct of the students, and has power subject to the approval of the Caput, to deal with violations of the regulations governing conduct

Any student who may be convicted of having taken part in a parade or procession through the city which has not been authorized by the police authorities after application by the Executive of the Students Administrative Council, will be severely disciplined

## WOMEN STUDENTS ADMINISTRATIVE COUNCIL

The Women Students Administrative Council is the representative organ of the women students of the University of Toronto and aims to coördinate all intercollegiate activities. It consists of representatives from all colleges and faculties. A fee of \$3 is paid for the council by each woman student proceeding to the Bachelor's degree. The council assumes joint financial responsibility with the men's council for the publication of *Varsity* and *Torontonensis*.

## CANADIAN OFFICERS TRAINING CORPS

The Toronto Contingent of the Canadian Officers Training Corps was organized in 1914, with a strength of 12 Companies. Its primary object is to provide students at Universities with a standardized measure of military training with a view to their qualifying for commissions in the country's auxiliary forces. C O T C certificates of qualification exempt their holders from examination for commissioned rank on joining a Militia unit. The facilities which are offered by the contingent for obtaining a qualification while at the University are intended to enable young gentlemen to give personal service to their country with the least possible interference with their civil careers, to ensure that units have their establishments complete in the junior commissioned ranks, and to build up an adequate reserve of scientifically trained officers who have completed a period of consecutive and systematic military training, on academic lines, of a nature calculated to produce good officers.

The contingent provides the practical work for students taking the Military Studies option for the Arts degree, as also physical exercise for students who may choose this as the form in which they will take their compulsory Physical Training. In addition to service in the corps for a University credit, students of any year or faculty are trained in it to qualify for officers' certificates, writing on the examinations set by the War Office for members of O T C contingents throughout the Empire.

During session 1921-22 three companies were successfully reorganized—in Arts, Medicine and Applied Science respectively—and it is hoped so to

arrange the training of each that on leaving the University students will be qualified for commissions in that branch of the Militia to which their University course particularly applied

The C O T C is a unit of the non-permanent Active Militia but forms no part of the organization for war and cannot be called out for active service as such. It is a training centre for the educated youth of the country from whom, as from all its sons, the Empire requires hard service, but the hardest from those to whom most has been given

The present Headquarters are at 181 College Street, and include armouries, members' reading room, library and lecture room

The Contingent's Staff is —

Officer Commanding, COLONEL W R LANG, late Gen Staff, C E F

Second in Command, MAJOR T R LOUDON, late Can Eng, C E F

Adjutant, MAJOR H H MADILL, late Instructional Cadre, C E F

Quartermaster, CAPT V C KERRISON, late C A S C, C E F.

Paymaster, LIEUT T A REED

Contingent Sergeant-Major, S-M W HUNT, late Royal Welch Fusiliers

## ACADEMIC STANDING FOR HIGH SCHOOL ASSISTANT'S CERTIFICATE

The Department of Education of Ontario has approved the following regulations with respect to the academic standing necessary for admission to the Course for a High School Assistant's Certificate in the Ontario College of Education

### I ORDINARY HIGH SCHOOL CERTIFICATE

A candidate for admission shall submit with his application his certificate of graduation as Bachelor or Master of Arts, Bachelor or Master of Science, Bachelor of Commerce, Bachelor of Agriculture, or Bachelor of Applied Science, from a British university, after a regular university course approved by the Minister of Education as to entrance requirements and as to content of the undergraduate courses. Each applicant must have Upper School or Honour Matriculation standing in English and History and Mathematics or the equivalent of such standing

### II HIGH SCHOOL SPECIALIST'S CERTIFICATE

Subject to the conditions specified below, the academic standing for admission to the courses leading to High School Specialists' certificates in Classics, English and French, English and German or Spanish, French and German or Spanish, English and History, Mathematics and Physics, Science, and Household Science is an Honour degree in Arts from any one of —the University of Toronto, Queen's University, McMaster University, and the Western University

1 The courses in the departments specified above shall be the Honour courses as defined in the calendars of the respective Universities for the year 1920-21. After due notice from any one of the four Universities, the Minister may accept modifications of its courses for Specialist standing.

2 Honour degrees in Arts from other British Universities on courses which are deemed to be the equivalent of those prescribed in the calendars of the four Ontario Universities may be accepted for Specialist.

3 The courses shall extend over at least five years from Pass Matriculation or, as may be determined under the regulations of the University concerned, over four years from Honour Matriculation.

4 Candidates shall attend for at least two full academic years. Under the direction of the University they may substitute for one of those years, at least two Summer Sessions.

5 The standard for each year shall be that prescribed by the University for candidates taking Honour courses, with the additional provision that in the final Honour work of the department in which specialist standing is sought, the standard shall be at least Second Class Honours (sixty-six per cent).

6 The Minister shall have authority to deal with any case not covered under the above. Each University shall submit to the Minister a recommendation on any case whose merits justify special consideration.

### THE PEARSON KIRKMAN MARFLEET LECTURESHIP

In November, 1910, Mrs Lydia A. Marfleet, of Prophetstown, Illinois, gave the sum of \$5,000 to found a lectureship in the University of Toronto, to be called, in memory of her late husband, the Pearson Kirkman Marfleet Lectureship.

The Governors accepted the trust, and have established and agreed to maintain the lectureship in perpetuity.

The Governors have undertaken to appoint at least once in every four years some person or persons to deliver a course of lectures in the University of Toronto on this foundation, and as the late Pearson Kirkman Marfleet, an American citizen, devoted constant thought to the public welfare of his own country, and also watched the growth of the Dominion of Canada with profound interest, the Governors have further undertaken that such person or persons as may from time to time be appointed shall, as far as possible, be chosen with regard to their special ability to set forth some phase or phases of the national movements of each or both countries.

The first course of lectures under this foundation was delivered on February 10th, 11th and 12th, 1915, by the Honourable William Howard Taft, Ex-President of the United States.

The second course of lectures was delivered on October 5th, 6th and 7th, 1921, by the Right Honourable Sir Robert Borden, G C M G, P C, I. L. D.

## LAW SOCIETY OF UPPER CANADA

The following extract is taken from the Rules of the Law Society of Upper Canada respecting the qualification required from applicants for admission as students-at-law —

103 (2) Anyone who shall present proof that he or she has, within four years of his or her application for admission, passed the examination of the University of Toronto prescribed at the end of the first year in the Faculty of Arts entitling him or her to enter unconditionally the second year and to proceed in due course to a degree in Arts, or the examination of any other University in Ontario equivalent thereto shall be entitled to admission as a student-at-law without further examination by the Society on paying the prescribed fee

## UNIVERSITY OF OXFORD

A student of this University who has completed two years of the course in Arts may be admitted to the status of a Junior Colonial Student at the University of Oxford, while a student who has completed three years, and has taken honours in the final examination or who has obtained second class honours in the Third or Fourth Year, may be admitted as a Senior Colonial Student. In each of these cases, on complying with certain conditions, a student may obtain his degree at Oxford in two years

## UNIVERSITY OF CAMBRIDGE

The University of Toronto is affiliated to the University of Cambridge and matriculated students who have passed the examinations of the First and Second Years are entitled to admission to the privileges of affiliation, which enable a student to take his degree at Cambridge without completing the full period of residence

## FEES

All University fees, as also the fees of students enrolled in University College, are payable at the Bursar's Office in Simcoe Hall, between the hours of ten and one o'clock, except on Saturday

The College fees of students enrolled in Victoria College are payable to the Fees Clerk of that College

The College fees of students enrolled in Trinity College or St Michael's College are payable to the Bursar of the College

### I UNIVERSITY FEES

Any student proceeding to a Bachelor's degree in the Faculty of Arts and enrolled in University College, or Victoria College, or Trinity College, or St Michael's College, may attend the lectures of University professors and lecturers in the Faculty of Arts without payment of fees, except those imposed for laboratory supplies, but such students must register in the University

#### AD EUNDEM STATUM FEES

For admission, by certificate, to Second Year	\$15 00
For admission ad eundem statum	10 00

#### LIBRARY FEE

The annual fee	\$2 00
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Every student in attendance, proceeding to a Bachelor's degree in the Faculty of Arts, is required to pay at the time of the entry of his name with the Registrar the annual library fee

No occasional or graduate student shall be admitted to the library save upon the payment of the annual fee

#### CHARGES FOR LABORATORY SUPPLIES

Charges for supplies shall include laboratory materials and instruments used by or for the student, and ordinary wear and tear of instruments, but not charges for waste, neglect and breakage, which are to be met out of a deposit to be fixed by the Professor

The annual supply charges for a student shall be according to the following table in which for convenient reference, the college fees for each year of the various courses are also included, reference being made to the annual fee if paid in October, and not by instalments, for the details of which see pages 167 and 168



COURSES	ON PROBATION		FIRST YEAR		SECOND YEAR		THIRD YEAR		FOURTH YEAR	
	COLLEGE REGISTRATION	LABORATORY SUPPLIES	COLLEGE REGISTRATION	LABORATORY SUPPLIES	COLLEGE REGISTRATION	LABORATORY SUPPLIES	COLLEGE REGISTRATION	LABORATORY SUPPLIES	COLLEGE REGISTRATION	LABORATORY SUPPLIES
Pass Course	45		40		40		40	5	40	5
Philosophy	45	5	40		40		40	3	35	3
Psychology	45		40	5	40	8	40	8	40	10
Commerce and Finance (B A Course)										
Mathematics	45	3	40	3	40	3	40	3	40	3
Mathematics and Physics	45	3	40	3	40	5	40	3	40	
Physics	45	5	40	5	40	8	40	8	35	10
Astronomy and Physics										
Biology	45	5	40	5	40	9	35	12	30	22
Physiology and Biochemistry	45	5	40	5	40	6	35	10	30	20
Biological and Medical Sciences	45	5	40	5	40	6	35	10	30	20
Chemistry and Mineralogy I and Chemistry	45	5	40	5	40	5	35	13	35	10
Chemistry and Mineralogy II	45	5	40	5	40	5	40	4	40	3
Geology and Mineralogy	45	5	40	5	40	9	40	3	40	3
Household Science and Household Economics	45	5	40	5	40	11	35	15	30	20
Science (General)	45	5	40	5	40	9	35	14	30	20
Any other Course	45		40		40		40		40	

<sup>1</sup>The Laboratory Supply fee in the Third and Fourth Years is required only from those students who are taking the Household Science option

<sup>2</sup>The Laboratory Supply fee is not required from students of St. Michael's College

<sup>3</sup>The Laboratory Supply fee is required of students taking a Science as a Pass subject

<sup>4</sup>The fees for the Faculty of Medicine are not included

<sup>5</sup>The fees for Drawing and Assaying are not included

<sup>6</sup>At present these courses are Classics, Greek and Hebrew, Oriental Languages, Oriental Languages (Greek Option), French, Greek and Latin, Modern Languages, English and History, Modern History, Political Science, Philosophy (English or History Option)

## HART HOUSE FEE

The annual fee \$8 00

Every male student in attendance proceeding to a Bachelor's degree in the Faculty of Arts, is required to pay to the Bursar before December 1st the annual fee of eight dollars for the maintenance of Hart House. If this fee is not paid by the above date a penalty of two dollars will be imposed, making the total fee ten dollars.

## STUDENTS ADMINISTRATIVE COUNCIL FEE

The annual fee \$3 00

Every male student in attendance proceeding to a Bachelor's degree in the Faculty of Arts, is required to pay to the Bursar at the time of the entry of his name with the Registrar the annual fee of three dollars for the maintenance of the Students' Administrative Council.

## WOMEN STUDENTS ADMINISTRATIVE COUNCIL FEE

The annual fee \$3 00

Every woman student proceeding to a Bachelor's degree in the Faculty of Arts, is required to pay to the Bursar at the time of the entry of her name with the Registrar the annual fee of three dollars for the maintenance of the Women Students Administrative Council.

## MEN'S PHYSICAL TRAINING FEE

The annual fee \$5 00

Every male student in attendance, proceeding to a Bachelor's degree in the Faculty of Arts, is required to pay to the Bursar the annual Physical Training fee of \$5 00 at the opening of each session in which Physical Training is compulsory for such student.

## WOMEN'S PHYSICAL TRAINING FEE

The annual fee \$4 00

Every woman student in attendance, proceeding to a Bachelor's degree and registered in University College, is required to pay to the Bursar the Physical Training fee of \$4 00 at the opening of each session in which Physical Training is compulsory for such student.

## SUPPLEMENTAL PHYSICAL TRAINING FEE

The supplemental fee \$10 00

Every student who has neglected to complete satisfactorily the course in Physical Training of the First or Second Year and who, under Section 47, must take this work during the Second or Third Year respectively of his or her course, will be required to pay to the Bursar at the opening of the session a supplemental fee of \$10 00 in addition to the prescribed Physical Training fee.

## EXAMINATION FEES

Students proceeding regularly to the B A degree	
For the June Senior Matriculation	\$15 00
For each examination other than June	10 00
For each Supplemental examination	10 00
Teachers' Course, Occasional and Summer Session Students	
For examination in one subject of any year, each	5 00
Maximum fee	10 00

A candidate who fails to pay his University fees on or before the fifteenth of March—the last day for receiving fees prior to the May examination—must pay an additional fee of one dollar

A candidate who fails to send his application for examination by the day appointed for the receipt of such applications must pay an additional fee of one dollar

## DEGREE FEES

For the degree of B A	\$10 00
For admission <i>ad eundem gradum</i> (B A)	20 00

## MISCELLANEOUS FEES

For certificate of honour	\$1 00
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The fee for admission *ad eundem statum*, or for dispensation from attendance upon lectures, or for certificates of honour, must be paid at the time of application

A candidate who fails to pay his University fees on or before the fifteenth of March—the last day for receiving fees prior to the May examination—must pay an additional fee of one dollar

## II COLLEGE FEES

A graduate in Arts, who during his undergraduate course, was enrolled in University College, or Victoria College, or Trinity College, or St Michael's College, may attend lectures free in the college in which he was so enrolled

Every student proceeding to the degree of Bachelor of Arts shall, on each year's enrolment in University College, or Victoria College, or Trinity College, or St Michael's College, pay an enrolment fee according to the following table, which fee shall include all instruction for which fees are chargeable except laboratory supply charges and library fees —

TABLE OF FEES

FIRST YEAR

Any course, if paid in full in October except for students on probation	\$40 00
By instalments —	
First instalment, if paid in October	20 00
Second instalment, if paid in January	21 00
Students on probation—Any course, if paid in full in October	45 00
By instalments —	
First instalment, if paid in October	23 00
Second instalment, if paid in January	23 00

SECOND YEAR

Any course, if paid in full in October	40 00
By instalments —	
First instalment, if paid in October	20 00
Second instalment, if paid in January	21 00

THIRD YEAR

Biology, <i>or</i> Physiology and Biochemistry, <i>or</i> Biological and Medical Sciences, <i>or</i> Chemistry and Mineralogy I, <i>or</i> Chemistry, <i>or</i> Household Science, <i>or</i> Household Economics, <i>or</i> Science (General)	
If paid in full in October	35 00
By instalments —	
First instalment, if paid in October	18 00
Second instalment, if paid in January	18 00
Any other course, if paid in full in October	40 00
By instalments —	
First instalment, if paid in October	20 00
Second instalment, if paid in January	21 00

FOURTH YEAR

Psychology, <i>or</i> Physics, <i>or</i> Astronomy and Physics, <i>or</i> Chemistry and Mineralogy I, <i>or</i> Chemistry	
If paid in full in October	35 00
By instalments —	
First instalment, if paid in October	18 00
Second instalment, if paid in January	18 00

Biology, *or* Physiology and Biochemistry, *or* Biological and Medical Sciences, *or* Household Science, *or* Household Economics, *or* Science (General)

If paid in full in October 30 00

By instalments —

First instalment, if paid in October 15 00

Second instalment, if paid in January 16 00

Any other course, if paid in full in October 40 00

By instalments —

First instalment, if paid in October 20 00

Second instalment, if paid in January 21 00

#### COMMERCE AND FINANCE (B COMM COURSE)

First, second, third and fourth years Annual fee, including tuition, library and one annual examination (the College fee in each of the first, second, third and fourth years is \$30) —

If paid in full in October 80 00

By instalments —

First instalment, if paid in October 40 00

Second instalment, if paid in January 41 00

All the above fees are payable in advance After October 31st, a penalty of \$1 00 per month will be imposed until the whole amount is paid In the case of payment by instalments the same rule as to penalty will apply. A student will not be admitted to any of the University lectures or laboratories who is in arrears for his fees

The annual enrolment fee of a matriculated student taking under the regulations more than one honour course shall be \$40 only

The enrolment fee of a matriculated student attending lectures for one term shall be \$20

#### FEES FOR DISPENSATION

The enrolment fee for students receiving dispensation from attendance upon lectures in University College, or Victoria College, or Trinity College, or St Michael's College, shall be \$5 for each term, in addition to the University fee of \$5 The payment of these fees entitles the student to supervision of "term work" prescribed in connection with his course

## UNIVERSITY COLLEGE LITERARY AND ATHLETIC SOCIETY FEE

The annual fee	\$2 00
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Every male student registered in University College and proceeding to a degree shall pay to the Bursar at the opening of the session an annual fee of \$2 for the maintenance of the University College Literary and Athletic Society

## UNIVERSITY COLLEGE WOMEN UNDERGRADUATES ASSOCIATION

The annual fee	\$1 00
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Every woman student registered in University College and proceeding to a degree shall pay to the Bursar at the opening of the session an annual fee of \$1 00 for the maintenance of the University College Women Undergraduates Association

## UNIVERSITY COLLEGE WOMEN'S UNION

The annual fee	\$4 00
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Every woman student registered in University College and proceeding to a Bachelor's degree is required to pay to the Bursar at the time of the entry of her name with the Registrar, the annual fee of four dollars for the maintenance of the Women's Union. A reduction will be made (a) in the case of those University College students who have paid four dollars for instruction in Athletics, and (b) in the case of graduates, and in these two cases the fee for the privileges of the Union will be reduced to three dollars

## III FEES FOR OCCASIONAL STUDENTS, TEACHERS' COURSE

"A course in laboratory work" means the continuous course of instruction in laboratory or practical work offered to students in any one year in any of the subjects in which laboratory work is or may be prescribed

"A course of lectures" means the continuous course of instruction offered in any one year in any of the subjects in which instruction is or may be given

Laboratory fees are divided into (a) Fees for practical instruction in the laboratory, (b) Charges for supplies, which are the same as for students proceeding to the degree (See page 43)

The payment of fees shall not entitle any occasional student to be admitted to the laboratory work of a later year without having taken that of the earlier year or years, unless this requirement is dispensed with by the Council of the Faculty on the recommendation of the Professor

The annual fee for an occasional student attending a course, or partial course, of lectures shall be as follows —

TUITION FEES	For the Session	For the Term
For a course in any one subject	\$10 00	\$ 5 00
For a course in more than one subject, each subject	9 00	5 00
Maximum Fee	45 00	23 00

## EXAMINATION FEES

For examination in one subject of any year, each	. \$ 5 00
Maximum examination fee	10 00

All instruction fees are payable strictly in advance

## PRIZES, MEDALS, SCHOLARSHIPS AND FELLOWSHIPS

No candidate will be permitted to hold more than one scholarship, but any one who would, but for this provision, have been entitled to a second scholarship, will have his name published in the lists

All undergraduate scholars must sign a declaration of intention to proceed to a degree in Arts in this University, and must attend lectures in one of the Colleges for the academic year immediately following such examination. The Senate, however, on the recommendation of the Faculty, may, upon satisfactory reasons being shown, permit such scholar to postpone attendance upon lectures for a year. If at the end of the year a further postponement is necessary, special application must again be made. In every such case the payment of the scholarship will likewise be postponed. The scholarships are paid in three instalments—on November 20th, January 20th and March 20th, and before each payment a scholar is required to secure from the Registrar's Office a certificate of attendance upon lectures to be signed by two senior members of the staff

No prize, scholarship or medal will be awarded to any candidate who has been placed lower than the first class in the department to which the prize, scholarship or medal is attached

When the letter "U" is prefixed, the award is made by the Senate of the University on the recommendation of the Council of the Faculty as the result of competition open to the students of all the Colleges. In all other cases the letter indicates the governing body by which the award is made—the Council of University College by the letter "C", the Senate of Victoria College by the letter "V", the Corporation of Trinity College by the letter "T", and the Council of St Michael's College by the letter "M"

With the exception of the Jean Balmer Scholarship in Science of the First Year, all honours awarded by the Senate on the recommendation of the Faculty are open to the students of all the Colleges

The competition for a College scholarship, medal or prize is confined to the students registered in that College and shall be subject to such regulations as the College may from time to time determine

### PRIZES

#### FIRST YEAR

##### ITALIAN

U The Italian Prize, the gift of the Minister of Foreign Affairs for the Kingdom of Italy

Awarded in 1921 to Miss J F Struthers, 1922, N P H Brown, 1923,  
E K Brown

There will be no award in 1925



## ENGLISH

- V The Class of 1902 Prize, the gift of Professor C E Auger, B A , of the value of \$10 to the student ranking highest in English of the Pass Course  
Awarded in 1920 to F G Ward, 1921, Miss R J Stewart, 1922, D M Campbell, 1923, A E Larke
- M The Mahon Prize, the gift of John Mahon, Esq , of the value of \$25 to the student ranking highest in Honour English  
Awarded in 1923 to Miss P M Blake
- M A prize of the value of \$10 to the student ranking highest in English of the Pass Course  
Awarded in 1920 to E P Butler, 1921, L F Barnett, 1922, Miss M W Coughlin, 1923, Miss M J Phelan

## ETHICS

- U The Tracy Prize, of the value of \$10, the gift of Professor F Tracy, to the student who, obtaining First Class Honours in the Course in Philosophy (English or History Option) ranks highest in Ethics  
No award in 1922, 1923, Miss W M Hodges

## RELIGIOUS KNOWLEDGE

- M A prize, the gift of the graduating class of 1921, of the value of \$25, to the student ranking highest in Religious Knowledge

## COMMERCE AND FINANCE

- U A Prize, of the value of \$40, to the student ranking first in honours in the Course in Commerce and Finance

## SECOND YEAR

## ITALIAN

- U The Italian Prize, the gift of the Minister of Foreign Affairs for the Kingdom of Italy  
Awarded in 1921 to Miss L M Latchford, 1922, Miss J F Struthers, 1923, N P H Brown  
There will be no award in 1925

## ENGLISH

- C The Alumnae Prize, the gift of the Toronto Alumnae, of the value of \$10 in books, to the student ranking highest in English Composition  
Awarded in 1920 to Miss H M Cochrane, 1921, E W McInnis, 1922, C S Gulston, 1923, N P H Brown
- V The Webster Prize, the gift of the late J G Hodgins, Esq , M A , LL D , I S O , of the value of \$10, to the student ranking highest in English of the Pass Course  
Awarded in 1920 to R de la P Stewart, 1921, F G Ward, 1922, F J G Cunningham, 1923, Miss C I Davidson

- M The Hughes Prize, the gift of Frank Hughes, Esq, of the value of \$25, to the student ranking highest in Honour English  
Awarded in 1923 to Miss B V Larochele
- M A Prize, of the value of \$10, to the student ranking highest in English of the Pass Course  
Awarded in 1920 to R J Dobell, 1921, Miss A B Ballard, 1922, Miss M R Campbell, 1923, T P McLaughlin

#### HEBREW

- V The Robert Johnston Prize, the gift of the Rev Professor J F McLaughlin, B A, D D, of the value of \$15, to the student ranking highest in Hebrew of the Pass Course  
Awarded in 1920 to H M Wright, 1921, T C Wilkinson, 1922, E M Hart, 1923, J M Deck

#### PHILOSOPHY

- M The Kernahan Prize, the gift of W T Kernahan, Esq, in memory of the late Rev Gregory Kernahan, of the value of \$25, to the student ranking first in the examinations in Philosophy  
Awarded in 1920 to L J Stock, 1921, L A Cleary, 1922, L F Barnett, 1923, T J Murtha

### FIRST AND SECOND YEARS

#### ENGLISH

- V Two Prizes, of the value of \$10 each, will be awarded for the two best essays on a subject to be assigned by the Staff in the Department of English. Neither of these prizes will be granted twice to the same student  
Awarded in 1920 to L H Miller and Miss M. V Ray, 1921, F G Ward and Miss A E Howard, 1922, N J Endicott and Miss R J Stewart, 1923, Miss R I Jenking and D J Creighton

### THIRD YEAR

#### ITALIAN

- U The Italian Prize, the gift of the Minister of Foreign Affairs for the Kingdom of Italy  
No award in 1921, 1922, Miss L M Latchford, 1923, Miss J F Struthers  
There will be no award in 1925

#### ENGLISH

- V The Hodgins Prize, the gift of the late J G Hodgins, Esq, M A, LL D, I S O, of the value of \$12, to the student ranking highest in English of the Pass Course  
No award in 1920 and in 1921, 1922, F G Ward, 1923, Miss K E Elhott.

- M The Phelan Prize, the gift of T N Phelan, Esq , of the value of \$25, to the student ranking highest in Honour English  
Awarded in 1923 to E C Le Bel
- M The Dockeray Prize, of the value of \$25, to the student ranking highest in English of the Pass Course  
Awarded in 1920 to T S Melady, 1921, Miss M A Hannan, 1922, C B Lanphier, 1923, no award

#### ENGLISH BIBLE

- V The Massey Bursaries, established by the late Hart A Massey, Esq , one of \$25 and one of \$15, to the students ranking first and second at the examination in the English Bible  
Awarded in 1920 to Miss G L Rutherford and E M Cook, 1921, Miss F D Daly and Miss M J Chappell, 1922, Miss G E Metzler and A D Wait, 1923, E R Hall and J L Smith

#### PHILOSOPHY

- M The Hanrahan Prize, of the value of \$25, the gift of W T Kernahan, Esq , in memory of the late John Hanrahan, Esq , to the student ranking first in the examinations in Philosophy  
No award in 1920, 1921, P J Bart, R J Dobell and L J Stock, *aeq* , 1922, L Cleary, 1923, L F Barnett

#### HOUSEHOLD SCIENCE

- U The Anna Howe Reeve Prize, of the value of \$25, the gift of Dr R A Reeve, "in memory of a true helpmate, whose unselfishness enabled the donor the better to discharge his duty to his Alma Mater" The Committee of Award consists of the President of the University, Professor Laird and Professor Benson  
Awarded in 1920 to Miss M G Webster, 1921, Miss K E Bennett, 1922, no award, 1923, Miss E B Hislop

### FOURTH YEAR

#### ITALIAN

- U. The Italian Prize, the gift of the Minister of Foreign Affairs for the Kingdom of Italy  
Awarded in 1921 to Miss G M Cook, 1922 and 1923, no award  
There will be no award in 1925

#### ENGLISH

- M The Dockeray Prize, of the value of \$25, to the student ranking highest in English of the Pass Course  
Awarded in 1920 to Miss F T Ronan, 1921, A T Leacy, 1922, Miss C E Coughlin and L. J Stock, *aeq* , 1923, Miss E M Dawson.

FRENCH

- U The Quebec Bonne Entente Prize, the proceeds from \$1,000, the gift of the delegates from the Province of Quebec to the Bonne Entente Movement

The Prize shall be awarded on the results of (a) an essay in French written on one of a number of subjects in the Examination Hall, (b) translation from English into French, (c) an oral test in which regard shall be had especially to facility in speaking, understanding and pronouncing French. The Prize shall be in money, and it is suggested that it be expended in acquiring a more perfect knowledge of French.

Competitors for this prize must file applications with the Registrar not later than March 15th.

Awarded in 1920 to Miss H. M. McCrimmon, 1921, Miss G. M. Cook, 1922, Miss H. M. Cochrane, 1923, H. W. Hilborn.

CANADIAN CONSTITUTIONAL HISTORY

- V The Robertson Prize, the gift of W. J. Robertson, Esq., B.A., LL.B., of the value of \$10, to the student ranking highest in Canadian Constitutional History.

Awarded in 1920 to H. D. Lang, 1921, M. J. Ayearst, 1922, E. C. Guillet, 1923, R. G. Start.

ETHICS

- C The Tracy Prize, of the value of \$10, the gift of Professor F. Tracy, to the student who, obtaining Grade A in the Pass Course, ranks highest in Pass Ethics.

No award in 1922 and in 1923.

T CLASSICS

The Prince of Wales' Prize, \$18, for the highest first class honours in Classics.

Awarded in 1920 to J. B. West, 1921, C. E. Phillips and J. Lowe, *arg.*, 1922 and 1923, no award.

T MATHEMATICS

The Prince of Wales' Prize, \$18, for the highest first class honours in Mathematics.

Awarded in 1920 to P. Lowe, 1921, no award, 1922, H. J. Stowe, 1923, no award.

NATURAL SCIENCE

- T A prize of \$15 for the highest first class honours in any graduating department of the Natural and Physical Sciences.

No award in 1920, 1921, Miss R. M. Nevill, 1922, A. H. Gee, 1923, no award.

MODERN LANGUAGES

- T A prize of \$15 for the highest first class honours in Modern Languages.

No award in 1920, 1921, 1922 and in 1923.

## ENGLISH AND HISTORY

- T A Prize of \$15 for the highest first class honours in English and History  
No award in 1920 and in 1921, 1922, J D Ketchum, 1923, no award

## MODERN HISTORY

- T A Prize of \$15 for the highest first class honours in Modern History  
No award in 1920, 1921, 1922 and in 1923

## PHILOSOPHY

- T A Prize of \$15 for the highest first class honours in Philosophy  
No award in 1920, 1921, 1922 and in 1923
- M A Prize, of the value of \$50, to the student ranking highest in the Department of Philosophy (St Michael's College)  
Awarded in 1920 to J L G Keogh, 1921, no award, 1922, P J Bart, R J Dobell and L J Stock, *aeq*, 1923, no award

## POLITICAL SCIENCE

- T A Prize of \$15 for the highest first class honours in Political Science  
Awarded in 1920 to D A C Martin, 1921 and 1922, no award, 1923, J F Day

## COMMERCE AND FINANCE

- T A Prize of \$15 for the highest first class honours in Commerce and Finance  
Awarded in 1920 to T Oakley, 1921, 1922 and 1923, no award

## PASS COURSE

- T A Prize of \$15 for the highest ranking in Grade A Standing in the Pass Course  
No award in 1920, 1921 and in 1922, 1923, Miss H J Hope

## THIRD AND FOURTH YEARS

## BIBLICAL GREEK

- V The Wallbridge Prize, the gift of the late A F Wallbridge, Esq, of the value of \$10, to the student ranking first in Life and Letters of St Paul  
Awarded in 1920 to H C Wolfram, 1921, C L Wood, 1922, F J Gardiner, 1923, C H Dickinson

## NEW TESTAMENT INTRODUCTION

- V The Joy Wallace Prize, endowed by the Rev Professor F H Wallace, M A, D D, of the value of \$15, to the student ranking first in New Testament Introduction and Exegesis  
Awarded in 1920 to J H Garden, 1921, W F Monroe, 1922, C L Wood, 1923, S A Moote

## ALL THE YEARS

## JEWISH HISTORY, LITERATURE, ETC

- U The Menorah Prize, the gift of B M Greene, Esq, of the value of \$50, is open for competition to all undergraduates in attendance at the University. On the recommendation of the examiners the prize will be awarded at the close of the session to the student submitting the best essay on some subject, approved by the President, in Jewish History, Literature, etc. Essays, under pseudonym, must be submitted, not later than May 1st, to the Registrar, from whom the list of approved subjects may be obtained.  
No award in 1922 and in 1923

## FRENCH

- C The Squair French Prose Prize, of the annual value of \$10, endowed by Professor Squair, is open for competition among students in attendance upon lectures in University College. The award shall be made annually by the Council of University College on the recommendation of the teaching staff in French. The books awarded are to be chosen by the winner after consultation with the staff in French. Competitors for this prize must file applications with the Registrar of University College not later than March 15th.  
Awarded in 1920 to Miss K M Asman and Miss H C Kirkwood, *aeq*, 1921, R A Allen, 1922, Miss D L Arthur, 1923, Miss H E Hetherington
- M The Belcourt Prize, the gift of Senator Belcourt, of the value of \$25, to the student who in writing and speaking uses the best French

## ENGLISH

- V The Lily Denton Keys Prize, of the annual value of \$25, endowed by Mr Norman A Keys, B A, as a memorial for his wife, Lily Denton, B A, is open for competition among all the Arts undergraduates of Victoria College. The subject of the essay shall be "The Present Day Novel".  
Awarded in 1920 to H D Langford, 1921, D G Creighton. 1922, no award, 1923, Miss K M Davies
- M The Hughes Prize, the gift of Frank Hughes, Esq, of the value of \$25, to the student who in speaking and writing uses the best English.  
Awarded in 1923 to E C Le Bel, M C O'Neill, *ex aequo*

## NEW TESTAMENT HISTORY

- V The Ryerson Prize, the gift of the late J G Hodgins, Esq, M A, LL D, I S O, of the value of \$12, to the student ranking first in Synoptic Gospels.  
Awarded in 1920 to J E Mitchell, 1921, J W Button, 1922, A E A Menzies, 1923, R E Gosse

## ORATORY

- 7 The Michael Fawcett Prize of \$40 is awarded annually for "the best extempore oration" on a subject to be assigned at the commencement of each college year by the trustees of the fund. This prize is open to all candidates on probation for the ministry of the Methodist Church. No award in 1920, 1921, W J H Smyth, 1922, D M Stinson, 1923, C H Dickinson

## GREEK

- 7 A Prize of \$20 for Greek Prose  
No award in 1920, 1921, 1922 and in 1923

## LATIN

- 7 A Prize of \$20 for Latin Verse  
No award in 1920, 1921, 1922 and in 1923  
7 A Prize of \$20 for Latin Essay  
No award in 1920, 1921, 1922 and in 1923

## GREEK or LATIN

- 7 A Prize of \$20 for an essay in English on some subject of classical study  
No award in 1920, 1921, 1922 and in 1923

## FRENCH

- 7 A Prize of \$20 for a French Essay  
No award in 1921, 1922 and in 1923

## ENGLISH

- 7 A Prize of \$20 for an English Essay  
No award in 1920, 1921, 1922 and in 1923  
7 A Prize of \$20 for an English Poem  
No award in 1920, 1921, Miss D M Sanders, P A Child, *proxime accessit*, 1922 and 1923, no award

The subjects of these Trinity College Prizes will be posted on the College notice board

## HELLENISTIC GREEK

- V The Driver Prize of \$10 is awarded annually on the result of an examination held in September on the Septuagint and allied versions. The prize is to be open to undergraduate and graduate students.  
No award in 1920, 1921, 1922 and 1923

## MEDALS

## SECOND YEAR

## THE PASS COURSE

- U The Governor-General's Silver Medal will be awarded to that candidate who, having Grade A standing in the Second Year, has the highest average percentage of marks obtained at the examinations of the First and Second Years, such examinations having been taken in two consecutive calendar years

The discretion of the examiners, as in the examination for the Governor-General's Gold Medal, shall apply also to this examination  
 No award in 1920, 1921, Miss D L Agnew, 1922, Miss A E Gillard, 1923, Miss M S R Boyd

## FOURTH YEAR

## GENERAL PROFICIENCY

- U The Governor-General's Gold Medal is intended for the encouragement of the study of English in those departments in which English is not an integral portion of the work of the third and fourth years and will be awarded to that candidate who, taking not less than sixty-six per cent. in English (as defined below), and not less than seventy-five per cent. in some one of the following honour departments—(a) Classics, (b) Greek and Hebrew, (c) Oriental Languages, (d) Modern History, (e) Political Science, (f) Commerce and Finance, (g) Philosophy, (h) Mathematics, (i) Physics, (j) Biology, (k) Physiology and Biochemistry, (l) Biological and Medical Sciences, (m) Chemistry and Mineralogy, (n) Chemistry, (o) Geology and Mineralogy, (p) Household Science, (q) Household Economics, (r) Science (General)—shall also take the best aggregate mark in English and the Honour Department

English shall be understood to mean only the papers based on English Courses 4a, 4b and 4c, as prescribed for Honour Courses. The essays prescribed for Honour students are not taken into account in this award

In order to obviate any unfairness arising from a different system of marking in different departments, the principle shall always be adopted of raising the marks of the best candidate in the first class of each department to the maximum, and those of the others in proportion, unless the examiners of any department report that the marks of the best candidate in their department are not of sufficient merit to be so raised

The Registrar shall publish not only the name of the successful candidate, but also the names of all candidates who, by satisfying the above conditions, are eligible for the award

Competitors for this medal must file applications with the Registrar not later than March 15th

Awarded in 1920 to J N D Bush, Miss M A Dickinson *proxime accessit*, 1921, T R S Broughton, 1922, Miss G V Lewis and Miss M V Ray, *aeq.*, 1923, F G Ward, Miss R V H Kendrick *proxime accessit*

- V The Prince of Wales' Gold Medal, endowed by His late Majesty King Edward VII, will be awarded to the student who ranks first in Grade A Standing in the Pass Course

No award in 1920, 1921, J W Button, 1922, F E Vipond, 1923 no award



- V The Prince of Wales' Silver Medal, endowed by His late Majesty King Edward VII, will be awarded to the student who ranks second in Grade A Standing in the Pass Course  
No award in 1920 and in 1921, 1922, S N F Chant, 1923, no award
- V The Governor-General's Silver Medal will be awarded to the candidate standing highest in Honour Modern English of the Fourth Year examination, provided he has taken First or Second Class in his Honour Department or Grade A Standing in the Pass Course at graduation, First Class Honour men having the preference and provided that this English is not an integral portion of his course In case such a candidate has already received the Governor-General's Gold Medal, the next in rank shall be eligible  
Honour Modern English shall be understood to mean only the papers based on English Courses 4a, 4b and 4c The essays prescribed for Honour students are not taken into account in this award  
No award in 1920, J N D Bush (mention), no award in 1921, T R S Broughton (mention), 1922, no award, 1923, W H Trethewey
- T The Governor-General's Silver Medal will be awarded to the student taking the best degree, provided that First Class Honours shall have been obtained in an Honour Course or Grade A Standing in the Pass Course  
Awarded in 1920 to P Lowe, 1921, Miss R M Nevill, 1922, A H Gee, H J Stowe *proxime accessit*, 1923, J F Day

#### CLASSICS

- C The McCaul Medal (Gold), established in 1886 by the late W H C Kerr, M A, Gold Medallist in Classics of 1859, in memory of the Rev John McCaul, LL D, First Professor of Classics, and First President of University College It was presented by Mr Kerr from 1886 up to his death, and from 1891 to 1894, after his death, by his widow Since then the donors have been in 1895 John Hoskin, K C, LL D, Chairman of the Board of Trustees 1906-1910, in 1896 Nicol Kingsmill, M A, K C, Classical Medallist of 1856, in 1897, A M Crombie, Esq, of Montreal, in memory of his brothers Ernestus Crombie, M A, Gold Medallist in Classics of 1854, and Marcellus Crombie, M A, LL B, Gold Medallist in Classics of 1857, in 1898 and 1899 William Dale, M A, Gold Medallist in Classics of 1871, in 1900 the late John Fletcher, M A, LL D, Gold Medallist in Classics of 1872, and Maurice Hutton, M A, LL D, in 1901 Adam Carruthers, M A, Gold Medallist in Classics of 1880, in 1902 W S Milner, M A, Gold Medallist in Classics of 1881, in 1903 the late G W Johnston, Ph D, in 1904-1922 the Hon Sir J M Gibson, M A, LL D, by whom it was endowed in 1922

The winners of the McCaul Medal have been as follows

1886, W P Mustard, 1887, E O Sliter, 1888, H J Crawford (*ob*), 1889, H J Cody, 1890, James Colling, 1891, C A Stuart, 1892, F W Shipley, 1893, F B R Helles, 1894, J H Brown (*ob*), 1895, W T

F Tamblyn, 1896, Donald McFayden, 1897, R O Jolliffe, 1898, Miss Florence E Kirkwood, 1899, W H Alexander, 1900, Miss Landon Wright, 1901, E J Kyle (*ob*), 1902, E H Oliver, 1903, A G Brown, 1904, W H Tackaberry (*ob*), 1905, S A Cudmore, 1906, R W Hart, 1907, W A Rae, 1908, Miss C M Knight, 1909, A G Hooper, 1910, no award 1911, C N Cochrane, 1912, C H Carruthers 1913, H V Wrong (*ob*), 1914, D Breslove, 1915, H R Kemp, 1916, W M Hugill, 1917, Miss E A Sinclair, 1918, no award, 1919, Miss E Harris, 1920, Miss M A Dickinson, 1921, H L Tracy, 1922, Miss M C Needler, 1923, L A MacKay

V The Edward Wilson Gold Medal, founded by the late Bishop Edward Wilson in memory of his son Edward Wilson  
Awarded in 1920 to J N D Bush, 1921, T R S Broughton, 1922, no award, 1923, Miss R V H Kendrick

V The S H Janes Silver Medal  
No award in 1920, 1921, 1922 and in 1923

#### MODERN LANGUAGES

C The Governor-General's Silver Medal  
Awarded in 1920 to G H Unwin, 1921, R A Allen and Miss G M Cook, *aeq*, 1922, Miss G R Bird and Miss K D Cordingley, *aeq*, 1923, Miss C P Cohen

V The J J MacLaren Gold Medal  
Awarded in 1920 to Miss E M Thornton, 1921, Miss F E Rodman, 1922, no award, 1923, H W Hilborn

V The S H Janes Silver Medal  
No award in 1920, 1921, Miss M H R Powers, 1922, no award, 1923, Miss M G Bailey

#### ENGLISH (4a, 4b, 4d)

V The Reginald Heber Manning Jolliffe Gold Medal, founded by his mother, in memory of Lieutenant R H M Jolliffe, who fell at Vimy Ridge, April 9th, 1916  
Awarded in 1922 to Miss J V McClenaghan (Miss M V Rav ranked), 1923, Miss L M Coburn

#### ENGLISH

M The Harris Gold Medal, in memory of the late Dean Harris, to the student ranking highest in Honour English

#### POLITICAL SCIENCE

V The J Reginald Adams Gold Medal, established by Rev and Mrs G K B Adams as a memorial of their son Lieut J Reginald Adams who died of wounds at Etaples, France, November 26th, 1917  
Awarded in 1920 to E H McKinney, 1921, 1922 and 1923, no award

V The J Reginald Adams Silver Medal  
No award in 1920, 1921, 1922 and in 1923

## PHILOSOPHY

- V The E J Sanford Gold Medal  
Awarded in 1920 to W H Moss, 1921 and 1922, no award, 1923, S J Mathers
- V The S H Janes Silver Medal  
No award in 1920, 1921 and in 1922, 1923, H J S Howey

## MATHEMATICS AND PHYSICS

- V The Gold Medal  
Awarded in 1922 to Miss A K Rehder, 1923, Miss R Carnahan
- V The S H Janes Silver Medal  
Awarded in 1920 to G M Shrum, 1921, L W Rentner, 1922, E C Horwood, 1923, W L Webster

## PHYSICS

- U The James Loudon Gold Medal, the gift of the local Committee for The Toronto Meeting of the American Association for the Advancement of Science Awarded to the candidate ranking highest in first class honours  
Awarded in 1920 to J A Sonley, 1921, L W Rentner, 1922, Miss M B Kearney, 1923, Miss R Carnahan

## ASTRONOMY AND PHYSICS

- U The Royal Astronomical Society of Canada Gold Medal, awarded to the candidate obtaining the first place in first class honours  
No award in 1920, 1921, 1922 and in 1923

## SCIENCE

- V The G A Cox Gold Medal, the gift of Mr Herbert C Cox  
Awarded in 1920 to Miss E V Eastcott, 1921, A E R Westman, 1922, J H Couch, 1923, G R Balfour
- V The Gold Medal  
Awarded in 1922 to L C Irvine, 1923, Miss M E Craig
- V The S H Janes Silver Medal  
No award in 1920, 1921, H D Brown, 1922, J M Luck and Miss K E Bennett, 1923, Miss K G Crosby and Miss M A Caldwell

## ALL THE YEARS

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## NATURAL SCIENCE

- U The Cawthorne Medal, the gift of F T Shutt, M A, awarded on the recommendation of the Natural Science Association  
No award in 1920, 1921, 1922 and in 1923

## SCHOLARSHIPS AND FELLOWSHIPS

## FIRST YEAR

## CLASSICS

- C The Moss Scholarship, of the value of \$60, founded by subscription in honour of the late Hon Chief Justice Thomas Moss  
Awarded in 1920 to L A MacKay, 1921, no award, 1922, F W Beare, 1923, R R H Page
- V The Robertson Scholarship, of the value of \$50, the gift of Professor J C Robertson, M A  
Awarded in 1920 to Miss R V Kendrick, 1921, Miss I F Irwin, 1922 and 1923, no award

## SEMITIC LANGUAGES or GREEK AND HEBREW

- T The Pettit Scholarship, of the value of \$40, with free tuition for three years, provided the scholar obtains first class honours at subsequent examinations  
Awarded in 1920 to J Lowe, 1921, 1922 and 1923, no award

## ORIENTAL LANGUAGES

- V The A P Misener Scholarship of the value of \$25, the gift of the Rev W A Potter, M A, B D, in memory of the late Rev Professor Misener  
Awarded in 1920 to F G Ward, 1921, no award, 1922, F R Vanderburgh, 1923, R M Dingwall

## MODERN LANGUAGES

- C The Edward Blake Scholarship, of the value of \$60, the gift of the late Hon Edward Blake, formerly Chancellor of the University  
Awarded in 1920 to Miss K R Manson, 1921, Miss K M Halford and Miss M Spence, *aeq*, 1922, Miss M J MacEwan, 1923, E K Brown

## POLITICAL SCIENCE

- U The Bankers' Scholarship, of the value of \$70, the gift of the Bank of Toronto, the Canadian Bank of Commerce, the Dominion, Imperial, Standard, and Traders Banks, and the Union Bank of Lower Canada  
Only such candidates are eligible as have passed the examination of the First Year and as may undertake to proceed to graduation in the Department of Political Science A special examination on some special text-book of history or finance will be held at the time of the Supplemental examination in September This scholarship is not tenable with any other

The prescribed text-books are as follows:—

- 1924 D H ROBERTSON, *Money* (Cambridge Economic Handbooks)  
1925 HENDERSON, *Supply and Demand* (Cambridge Economic Texts)  
Awarded in 1920 to Miss H M Dean, 1921, no award, 1922, W W Goforth, 1923, H A Stark

## MATHEMATICS

- U A Scholarship, of the value of \$50  
No award in 1923

## MATHEMATICS AND PHYSICS

- U The Alexander T Fulton Scholarship, of the value of \$60, the gift of the late Alexander T Fulton, Esq  
Awarded in 1920 to M S Bell, 1921, F B Relyea, 1922, R G Stagg, 1923, J D Burk

## NATURAL AND PHYSICAL SCIENCES

- U The First Alexander T Fulton Scholarship, of the value of \$50, the gift of the late Alexander T Fulton, Esq  
Awarded in 1920 to W J Clapson, 1921, O C H Kitching, 1922, W J B Dickson, 1923, Miss D F Forward
- U The Second Alexander T Fulton Scholarship, of the value of \$40, the gift of the late Alexander T. Fulton, Esq  
Awarded in 1921 to W S Keith, 1923, A W H Needler
- U The Third Alexander T Fulton Scholarship, of the value of \$30, the gift of the late Alexander T Fulton, Esq  
Awarded in 1921 to H R Hugill, 1923, L J Harris  
The Second and Third Scholarships were awarded in 1920 to G C Kelly and C W Sweetzer, *aeq*, and in 1922 to J L Hart and W R Watson, *aeq*
- U The Jean Balmer Scholarship in Science, of the value of \$50, the gift of Mrs Jane Balmer in memory of her daughter Miss Jean Balmer, B A, and in fulfilment of the wish expressed in the will of another daughter Miss Eliza M Balmer, B A  
This Scholarship is open for competition only to students registered in University College  
Awarded in 1920 to W J Clapson, 1921, W S Keith, 1922, J L Mark and W R Watson, *aeq*, 1923, A W H Needler

## ANY HONOUR COURSE

- U The Robert Bruce Scholarship, of the value of \$100, founded from the estate of the late Robert Bruce of Quebec This scholarship is open only to students (a) who are of Scottish extraction, (b) who have complete Matriculation in this University as at the date of entrance, (c) who without some assistance would be hampered in entering upon a course of study in the University A student who already holds a scholarship of the value of at least \$100, exclusive of free tuition, cannot qualify for the above scholarship Application for this scholarship should be made to the Registrar of the University

## PASS COURSE

- M The Knights of Columbus Scholarships, of the value of \$25 each, with free tuition for one year, to the four students ranking highest at the

examination of the First Year, on condition that such students in the following session enter the course in Honour Philosophy of the Second Year or any Honour Course of the First Year

Awarded in 1921 to L F Barnett, W Gavard, G B Keogh and Miss D Fleury, 1922, Miss M E Carroll, J F Flaherty, H J Lippert, and Miss M D Smith, 1923, J P Kane, Miss M J Phelan, Miss N C Story and B W Harrigan

## SECOND YEAR

### CLASSICS

- C The William Mulock Scholarship, of the value of \$60, the gift of the Hon Sir William Mulock, M A, LL D, for many years Vice-Chancellor of the University

Awarded in 1920 to J E A Johnstone, 1921, L A MacKay, 1922, no award, 1923, F W Beare

- T The Hart-Moorhouse Scholarship, of the value of \$40, the gift of Alumni, commemorating Messrs W Hart and A C Moorhouse, who were drowned in their graduating year, 1906, to the student ranking highest in first class honours in Classics, or, failing these, in English and History with the classical option

Awarded in 1920 to J Lowe, 1921 and 1922, no award, 1923, A B Robertson

### MODERN LANGUAGES

- C The George Brown Scholarship, of the value of \$60, founded in honour of the late Hon George Brown

Awarded in 1920 to Miss E A J Shaw, 1921, H R Sneddon, 1922, Miss M L Asman and Miss K M Halford, *aeq*, 1923, Miss M J MacEwan

### FRENCH

- V The Essa Van Dusen Dafoe Scholarship, of the value of \$50, the gift of Dr W A Dafoe, in memory of his wife, Essa Van Dusen, to be awarded annually to the student standing highest in a special examination in both oral and written French to be held in the Easter Term

Awarded in 1920 to L H Miller, 1921, H W Hilborn, 1922, Miss G H McKay, 1923, Miss A G Nelson

### ORIENTAL LANGUAGES

- V A Scholarship of \$50, the gift of the Rev Professor J F McLaughlin, B A, D D, and others

No award in 1920, 1921, F G Ward, 1922, F E Vipond, 1923, no award

### PHILOSOPHY

- U The John Macdonald Scholarship, of the value of \$50, the gift of the late Hon John Macdonald

Awarded in 1920 to W M Mustard, 1921, S J Mathers, 1922, H Moores, 1923, C G Park

- T A Scholarship in Mental and Moral Philosophy, which entitles the holder to free tuition in the Third Year and in the Fourth Year, if he obtains first class honours in the Second and Third Year  
No award in 1920, 1921, J S D Nation, 1922 and 1923, no award

#### POLITICAL SCIENCE

- U The First Alexander Mackenzie Scholarship, of the value of \$75, the gift of the friends of the late Hon Alexander Mackenzie  
Awarded in 1920 to R Wood, 1921, C P Halliday, 1922, F J G Cunningham, 1923, D M Fleming
- U The Second Alexander Mackenzie Scholarship, of the value of \$50, the gift of the friends of the late Hon Alexander Mackenzie  
Awarded in 1920 to G G Brown and R de la P Stewart, *aeq*, 1921, no award, 1922, J G Kelly, 1923, no award
- T A Scholarship in Political Science which entitles the holder to free tuition in the Third Year and in the Fourth Year, if he obtains first class honours in his Second and Third Year  
No award in 1920, 1921, 1922 and in 1923

#### MATHEMATICS AND PHYSICS

- U The William Mulock Scholarship, of the value of \$80, the gift of the Hon Sir William Mulock, M A, LL D, for many years Vice-Chancellor of the University  
Awarded in 1920 to Miss F F Halliday, 1921, J P Dandy, 1922, Miss K Baird, 1923, no award

#### PHYSICS

- U The Edward Blake Scholarship, of the value of \$45, the gift of the late Hon Edward Blake, M A, LL D, ex-Chancellor of the University  
No award in 1920 and in 1921, 1922, Miss B M Reid, 1923, no award

#### BIOLOGICAL AND MEDICAL SCIENCES

- U The Edward Blake Scholarship, of the value of \$45, the gift of the late Hon Edward Blake, M A, LL D, ex-Chancellor of the University  
Awarded in 1920 to J H Couch, 1921, G R Balfour, 1922, W S Keith, 1923, W J B Dickson

#### (1) BIOLOGY and (2) GEOLOGY AND MINERALOGY

- U The Edward Blake Scholarship, of the value of \$45, the gift of the late Hon Edward Blake, M A, LL D, ex-Chancellor of the University  
No award in 1920, 1921 and in 1922, 1923, (1) W R Watson, (2) C S Hanes

#### CHEMISTRY AND MINERALOGY

- U The Edward Blake Scholarship, of the value of \$45, the gift of the late Hon Edward Blake, M A, LL D, ex-Chancellor of the University

Awarded in 1920 to F L. Hutchison, 1921, no award, 1922, J Cryer, 1923, no award

In case one or more of the four foregoing scholarships is not awarded, the amount rendered available will be divided among the other scholars, but no award shall exceed \$60

#### CHEMISTRY AND MINERALOGY

- V The James G Burns Scholarship, of the value of \$50, endowed by the Rev Dr and Mrs R N Burns as a memorial of their son Major James G Burns, D S O, B A, killed in action at Cambrai, France, September 28th, 1918

Awarded in 1922 to O C H Kitching, 1923, no award

#### THIRD YEAR

##### CLASSICS

- C The Moss Scholarship, of the value of \$60, founded by subscription in honour of the late Hon Chief Justice Thomas Moss

Awarded in 1920 to M D C Tait; 1921, J E A Johnstone, 1922, L A MacKay, 1923, no award

##### MODERN LANGUAGES

- C The Julius Rossin Scholarship, of the value of \$60, the gift of the late Julius Rossin, M A

Awarded in 1920 to R A Allen, 1921, Miss D L Arthur, 1922, Miss C P Cohen, 1923, Miss K M Halford and P Matenko, *aeg*

##### ENGLISH AND HISTORY

- V The George Dennis Morse Scholarship, of the value of \$50, founded by the late Mrs Elizabeth Morse

No award in 1922, 1923, Miss G H McKay

##### ENGLISH (3a, 3d, 3e)

- V The Reginald Heber Manning Jolliffe Scholarship, of the value of \$30, founded by his mother in memory of Lieutenant R H M Jolliffe, who fell at Vimy Ridge, April 9th, 1916

Awarded in 1921 to J C Eastcott, 1922, Miss E R Whittington, 1923, N J Endicott

##### PHILOSOPHY

- C The John Macdonald Scholarship, of the value of \$50, the gift of the late Hon John Macdonald

Awarded in 1920 to F G Lightbourne, 1921, W M Mustard, 1922 and 1923, no award

- V The George John Blewett Scholarship, of the value of \$50, the gift of Mrs G J Blewett in memory of the late Rev Professor Blewett

Awarded in 1920 to E W Jewitt, 1921, no award, 1922, S J Mathers, 1923, H Moores



## POLITICAL SCIENCE

- U The First Alexander Mackenzie Scholarship of the value of \$75, the gift of the friends of the late Hon Alexander Mackenzie  
 " Awarded in 1920 to C M Vining, 1921, W G Thomson, 1922, M. D Smith, 1923, J G Kelly
- U The Second Alexander Mackenzie Scholarship, of the value of \$50, the gift of the friends of the late Hon Alexander Mackenzie  
 Awarded in 1920 to A F Annis, 1921, R J Wood, 1922, no award, 1923, P N Currie

## MATHEMATICS AND PHYSICS

- U A Scholarship of the value of \$60, the gift of the Local Committee for the Toronto meeting of the American Association for the Advancement of Science In awarding this scholarship, the theoretical and practical work in this department will be estimated in the proportion of three to one  
 Awarded in 1920 to H G Smith, 1921, Miss F F Halliday, 1922, Miss C I Lister and W L Webster, *aeq*, 1923, E H Graham

## MATHEMATICS AND PHYSICS, PHYSICS

- U The Ramsay Scholarship, of the value of \$50, the gift of the late Mr William Ramsay, of Bowland, Scotland The scholarship is open for competition to all students in the Third Year in the courses of (1) Physics and (2) Mathematics and Physics The award is made to the student who obtains the highest aggregate standing in experimental physics during the first three years of his course and who elects to proceed to the B A Degree in Physics in his final year  
 Awarded in 1920 to Miss F M Cale, 1921, E C Horwood, 1922, Miss R Carnahan, 1923, Miss K Baird

## PHYSICS

- U A scholarship of the value of \$55, the gift of the Local Committee for the Toronto meeting of the American Association for the Advancement of Science  
 Awarded in 1920 to Miss M F Cale and W C H McQuarrie, *aeq*, 1921, 1922 and 1923, no award

## BIOLOGICAL AND MEDICAL SCIENCES

- U The Daniel Wilson Scholarship, of the value of \$30, the gift of the late William Christie, Esq  
 Awarded in 1920 to Miss E H Chant, 1921, J H Couch, 1922, G R Balfour, 1923, W S Keith

## BIOLOGY

- U The Daniel Wilson Scholarship, of the value of \$30, the gift of the late William Christie, Esq

Awarded in 1920 to N B Laughton, 1921, Miss K M Millar, 1922, H H MacKay, 1923, no award

In case either of the two foregoing scholarships is not awarded, the amount rendered available will be given to the scholar in the other department

#### CHEMISTRY AND MINERALOGY

- U The Daniel Wilson Scholarship, of the value of \$30, the gift of the late William Christie, Esq

Awarded in 1920 to W G Noble, 1921, no award, 1922, S D Holmes, 1923, H R Hugill

#### GEOLOGY AND MINERALOGY

- U The Daniel Wilson Scholarship, of the value of \$30, the gift of the late William Christie, Esq

Awarded in 1920 to H F Swann, 1921, 1922 and 1923, no award

In case either of the two foregoing scholarships is not awarded, the amount rendered available will be given to the scholar in the other department

### FOURTH YEAR

#### HONOUR COURSE

- T The Jubilee Scholarship, of the value of \$120, tenable for two years, was founded by the Society for the Propagation of the Gospel, and is awarded yearly to the most deserving Bachelor of the Year who has obtained at least second class honours. On admission to the scholarship a declaration must be signed by the holder that it is his purpose to complete the Divinity Course in Trinity College and to present himself as a candidate for Holy Orders. Should he fail to do so, he will be held bound to refund to the College such proceeds of the scholarship as he shall have received

Awarded in 1920 to P W Dawson, 1921, J Lowe, 1922, no award, 1923, L A Spencer

### FIRST AND THIRD YEARS

The McClure Scholarship of \$45 will be awarded to the student of the First, Second or Third Year Arts who takes the highest standing in First Year Hebrew at the University, and who is preparing for the study of Theology in Knox College

In order to hold this scholarship a student must give attendance on the lectures of the session in which the scholarship is won, and must sign a declaration that it is his intention to enter the ministry of the Presbyterian Church in Canada, and to prosecute theological study in Knox College

## ALL THE YEARS

- U The Khaki University and Y M C A Memorial Scholarship Fund, established by the Khaki University Committee At the present time this fund is being used to make loans to returned-soldier students of the higher years Applications for such loans should be made to the President of the University
- U The S Ubukata Fund of \$10,000, the gift of Mr S Ubukata, provides for the establishment of prizes, medals, scholarships and loans for which Japanese students of all faculties and colleges may be eligible Information regarding the conditions of award may be obtained from the Registrar of the University
- V An endowment of \$13,500, provided by a bequest of the late W E H Massey, Esq , will furnish a number of additional scholarships which are awarded under the terms of the will in aid of deserving students
- V The Mrs Massey Treble Scholarship, the interest on an endowment of \$10,000, the bequest of the late Mrs Lillian Frances Massey Treble, provides a scholarship for the assistance of meritorious young women engaged in the study of Household Science for use in missionary work Awarded in 1919-1924 to Miss M A Caldwell
- V The Rowell Scholarships, one of \$30 and one of \$20, the gift of the Hon N W Rowell, K C , LL D , and Mrs Rowell, open to all students of Victoria College, will be awarded annually to the students ranking first and second in Church History  
Awarded in 1920 to C L Wood and J E Mitchell, 1921, J E R , Doxsee and J G Endicott, 1922, P W Hone and S J Mathers, 1923, R S Mills and Miss F A Anderson
- V The Hamilton Fisk Biggar Scholarships, of the value of \$50 each, awarded on the results of the May examinations to the students standing first in the University in those courses, Pass or Honour, where no prizes or scholarships are now offered Preference will be given to the students of the third year  
Awarded in 1920 to R W Hardy, T R S Broughton, N S Clark, W L Swanson, A E R Westman, Miss M V Ray, Miss N A Yeomans, and L V Smith, 1921, S N F Chant, Miss M E Craig, Miss M B R Fawcett, R E Gosse, H W Hilborn, Miss H G McKay, and C C Oke, 1922, H N Couch, E S Evans, H W Hilborn, Miss G H McKay, C C Oke, R F Trewin, and F G Ward, 1923 Miss M E H Adams, Miss S H Hughson, Miss I F Irwin, J A Irving, Miss E A Jerome, and R F Trewin
- V The Meacham Scholarship, the interest on an endowment of \$3,600, the gift of the late Rev George M Meacham, to be awarded to a student enrolled in Arts and Theology who has announced his intention to proceed to the foreign mission field, the choice to be made by the combined faculties of Arts and Theology
- V The Lincoln G Hutton Scholarship, of the value of \$100, the gift of the

late Mr and Mrs F Hutton in memory of their son Lieutenant Lincoln G Hutton, who fell in action in France on December 18th, 1916  
Awarded in 1920 to J N D Bush, 1921, F G Ward, 1922, J G Endicott, 1923, Miss D E Tove

- T The late Ven Archdeacon Nelles, of Brantford, left \$2,000 to Trinity College to be used for the assistance of students in Arts or Theology during their course in the College. Loans will be made from this fund to be repaid by the students after the completion of their College course. There are also other funds from which similar loans will be made.

## UNDERGRADUATE AND GRADUATE

### U THE ALL SOULS' HISTORICAL ESSAY PRIZE

- 1 The Prize shall be called The All Souls' Historical Essay Prize
- 2 It shall be of the value of one hundred and fifty dollars
- 3 It shall be open to all undergraduate members of the University of Toronto, and to graduates who at the time of the awarding of the prize shall not have exceeded one year from the time of graduation
- 4 It shall be awarded in every second year, beginning in 1910, and the subject shall be announced two years before the time of the award
- 5 There shall be a choice of two subjects for the Essay—one to be taken from Ancient European History, and one from Mediaeval or Modern History
- 6 The choice of subjects and the awarding of the prize shall be in the hands of an examining board—to consist of the President of the University of Toronto, the Professor of History in the University, and the Professor of Ancient History in University College, should any of these be unable to act, the remaining members of the Board shall be empowered to name a substitute
- 7 The Essay shall involve research work of an original nature, and no particular books or courses shall be prescribed
- 8 If the examiners judge any essay to be worthy, it shall be published at the expense of the University
- 9 The examining board shall have power to prescribe limits as to the length of the essay, and to draw up additional regulations for the administration of the prize, provided always that sections 3, 5 and 7 of these regulations remain unchanged
- 10 If no essay of sufficient merit be forthcoming it shall be in the power of the examiners to withhold the prize for that term, and to recommend that the money be devoted to whatever purpose they judge most fit to encourage historical research

Essays must be sent to the Registrar of the University on or before April 1, 1926 they must be accompanied by a motto or pseudonym, and by another and separate envelope containing the name of the candidate, the name of his college, and the month and year of his matriculation. Candidates are advised to have their essays typed, and to confine them to (approximately) 30,000 words

The subject for 1926 is —Thucydides' Interpretation of History or Carlyle as an Historian

Awarded in 1912 to G L B Mackenzie (*ob*), 1914, W F Wallace, 1918, Miss M G Reid

U THE JARDINE MEMORIAL PRIZE FOR ENGLISH VERSE

1 This prize, of the value of \$100, shall be open to any regular undergraduate student who has been in actual attendance at the University during the academic year preceding the date of submission (November 1) or who graduated in the previous academic year

2 The subject and metre of the poem shall be left to the choice of the competitor

3 It is suggested that the length of the poem should be not less than 100 or more than 300 lines

4 The poems shall be in the hands of the Registrar of the University by November 1st

5. Each poem shall be signed with a pseudonym and the competitor's name shall be submitted to the Registrar in a sealed envelope on which the pseudonym shall be written

6 With his or her name the competitor shall enclose a signed statement that the poem is absolutely his or her original work

7 The competition shall be judged by a board of five examiners, consisting of the head of the Department of English in each of the four colleges, and of a fifth examiner to be chosen by these four

8 The examiners shall have the power to withhold the award in any year if no poem which has been submitted for that year be found worthy of the prize

Awarded in 1920 to H D Langford, 1921, E W McInnis, 1922 and 1923, no award

U THE RAMSAY SCHOLARSHIP IN POLITICAL ECONOMY

This scholarship, of the value of \$60, is the gift of the late Mr William Ramsay of Bowland, Scotland, and is open for competition to all graduates or undergraduates who have been placed in the first class in one of the Economic subjects of the Fourth Year in the honour department of Political Science, but not more than two years must have elapsed since the competitor passed the examination above specified. The award is made upon an essay, the subject of which must be some question in Economics or Finance, of interest to the commercial community in Canada, to be announced in May of each year and the competition closes on the 15th of September thereafter, by which date the essays must be in the hands of the Registrar of the University

1924 Canada's Export Trade

Authorities must be carefully stated in every case

No award in 1920, 1921, 1922 and 1923

- U THE GEORGE PAYTON YOUNG MEMORIAL FELLOWSHIP IN PHILOSOPHY  
This fellowship, of the value of \$300, will be awarded in June, 1925. The holder must be a Bachelor of Arts who has taken an honour course in Philosophy. This scholarship is tenable for one year, and the holder must devote his whole time to the study of some topic falling under the general term Philosophy. He may pursue his studies either in the University of Toronto, or in some other University approved by the Council of the Faculty, but in either case he shall furnish to the Council of the Faculty such evidence as may from time to time be required that he is faithfully observing the conditions under which the scholarship was awarded. Applications must be in the hands of the Registrar on or before June 15th, 1925. Further particulars may be obtained from the Registrar.

Those who have held the Young Fellowship are —1897, M. A. Shaw, B. A., Ph. D., 1899, G. J. Blewett, B. A., Ph. D. (*ob.*), 1899, R. J. Richardson, B. A., 1901, F. S. Wrinch, B. A., Ph. D., 1903, Miss M. A. Downing, B. A., 1905, J. I. Hughes, B. A., 1907, W. T. Brown, B. A., Ph. D., 1911, J. S. Sanderson, M. A., Ph. D., 1913, E. A. Bott, B. A., 1915, C. A. Gowans, B. A., 1917, no award, 1919, L. C. Harvey, B. A., 1921, no award, 1923, S. J. Mathers, B. A.

- U THE MARION DICKENSON SCHOLARSHIP IN HOUSEHOLD SCIENCE  
1 This Scholarship, which has been founded from a bequest of the late Miss Marion Dickenson, shall be called the Marion Dickenson Scholarship, and is of the annual value of \$200.  
2 The Scholarship shall be awarded either to an undergraduate of the University of Toronto, or to a graduate student who holds a Degree from this University.  
3 The scholar shall undertake studies in Household Economics in Teachers College, Columbia University, New York, within three years after the award is made, but the Scholarship shall not be paid until after the scholar shall have regularly entered upon the course in Columbia University.  
4 A candidate for the Scholarship shall have obtained First Class Honour standing in Household Science at least in her term work on graduation.  
5 A candidate who proposes to enter upon an academic career shall have preference.  
6 In the event of an award not being made in any year the Scholarship may in exceptional cases be granted for the second year to a previous holder.  
7 The award shall be made by the Council of the Faculty of Arts on the recommendation of the President and the heads of the Departments of Household Science and Food Chemistry in the Faculty of Household Science.

These conditions are subject to change by the Senate and the Board of Governors.

Awarded in 1921 to Miss E H Pridham, 1922, Miss C Valentine, 1923, Miss P A Robertson

#### U TUTORIAL FELLOWSHIPS

Tutorial Fellowships in Mathematics, Chemistry and Biology, are awarded annually. The selection is made from among graduates of the University. Each Fellow is appointed annually, but he may be reappointed for a period not exceeding, in all, three years.

Each Fellow is required to assist in the teaching and practical work of his department, under the direction of the professor or lecturer. The Fellows are selected with a special view to their aptitude for teaching and their attainments in the department in which the appointment is to be made. Every Fellow on accepting his appointment comes under an obligation to fulfil the duties of his Fellowship during the academic year in which he is appointed, unless specially exempted.

In the Departments of Psychology, Physics, Biology, Physiology, Chemistry and Mineralogy, a number of Assistant Demonstrators and Class Assistants are appointed annually, whose appointments are made subject to the same conditions as those governing the Tutorial Fellowships. The annual remuneration attached to these positions varies according to the extent of the duties assigned to the appointees.

Candidates for the Fellowships must send their applications annually to the Registrar, not later than the first day of June.

#### THE RHODES SCHOLARSHIP

The trustees of the late Mr C J Rhodes have assigned one of the Rhodes Scholarships to the Province of Ontario.

This scholarship will hereafter be thrown into open competition in the Province, subject to the following conditions —

1. Candidates must be British subjects, with at least five years' domicile in Canada, and unmarried. They must have passed their nineteenth, but not have passed their twenty-fifth birthday, on October 1st of the year for which they are elected.

2. Candidates must be at least in their Sophomore Year at some recognized degree-granting University or College of Canada, and (if elected) complete the work of that year before coming into residence at Oxford.

3. Candidates must elect whether they will apply for the Scholarship of the Province in which they have acquired any considerable part of their educational qualification, or for that of the Province in which they have their ordinary private domicile, home or residence. They must be prepared to appear before the Committee of Selection for the Province they select.

In each Province there will be a Committee of Selection, appointed by the Trustees, in whose hands the nomination will rest. The Secretary of the Committee of Selection for Ontario is Norman S Macdonnell, Esq., Barrister, Sun Life Building, Toronto.

The Committees of Selection will be instructed to bear in mind the suggestions of Mr. Rhodes, who wished that, in the choice of his Scholars, regard should be had to literary and scholastic attainments, fondness for and success in outdoor sports, qualities of manhood, moral force of character, and leadership in school and college life

Every candidate for a Scholarship is required to furnish to the Committee of Selection for his Province the following —

- (a) A certificate of age
- (b) A written statement from the President or Acting President of his College or University to the effect that his application as a suitable candidate is approved
- (c) Certified evidence as to the courses of study pursued by the Scholar at his University, and as to his gradings in those courses This evidence should be signed by the Registrar, or other responsible official, of his University
- (d) A brief statement by himself of his athletic and general activities and interests at College, and of his proposed line of study at Oxford
- (e) Not more than four testimonials from persons well acquainted with him
- (f) References to four other responsible persons, whose addresses must be given in full, and of whom two at least must be professors under whom he has studied

It is in the power of the Committee of Selection to summon to a personal interview such of the candidates as they find desirable to see, and, save under exceptional circumstances, no Scholar will be elected without such an interview Where such an interview is dispensed with, a written statement of the reasons will be submitted to the Trustees

The next appointment will be made for 1925, applications for this Scholarship with all required material must reach the Secretary of the Committee of Selection not later than October 20th, 1924

The Scholarships are of the value of £300 a year, and are tenable for three years, subject to the continued approval of the College at Oxford of which the Scholar is a member They will be paid quarterly The first payment (£75) will be made at the beginning of the Scholar's first term at Oxford No request for any earlier payment can be considered

On account of the increased cost of living the Rhodes Trust is giving an additional bonus of £50 per annum until further notice

The Rhodes Scholars elected by this University previous to 1919 are as follows —

- 1904 E R Paterson, University College (ob)
- 1906 R C Reade, University College
- 1908 W K Fraser, University College
- 1910 A L Burt, Victoria College
- 1913 C H Carruthers, University College
- 1915 A K Griffin, Trinity College



The following Rhodes Scholars, students of this University, have been nominated by the Committee of Selection for Ontario and duly appointed by the Rhodes Trust —

1919 M D C Tait, University College

1920 J R Stirrett, University College

1921 J Lowe, Trinity College

1923 N J Endicott, Victoria College

#### THE EDWARD KYLIE AWARD

A permanent foundation known as the "Edward Kylie Trust" was established in 1921 by friends of the late Edward J. Kylie, M.A., of the Department of Modern History, as a memorial to him. The income from this fund is used by the Trustees for the purpose of making an award from time to time to a student in the Modern History Course to enable him to pursue his studies in Great Britain.

Applications should be addressed "The Secretary, The Edward Kylie Trust," and forwarded, before the first of May in each year, through the Registrar of the University, from whom further information can be secured.

Awarded in 1921 to F. H. Soward, 1922 and 1923, no award.

#### THE 1851 EXHIBITION SCIENCE RESEARCH SCHOLARSHIP

The Royal Commissioners for the Exhibition of 1851, if satisfied with the qualifications of the candidates put forward, will each year allot three Science Research Scholarships to Canada. The University of Toronto has been invited to recommend annually one or more candidates in order of merit for these Scholarships.

1 Each candidate recommended must be a British subject and under twenty-six years of age, except under very special circumstances, he must be a bona-fide student of Science of not less than three years' standing, he must also have completed a full University course and have spent at least one full academic year at this University prior to the date of recommendation.

2 Applications for these Scholarships must be made to the Registrar of the University not later than March 15th, the latest date on which the recommendation of the University of Toronto for Scholarships offered in 1925 can be received at the Office of the Commissioners is May 1st, 1925.

3 Each Scholarship is of the value of £250 per annum, payable quarterly in advance, on presenting to the Commissioners a satisfactory final report at the expiration of his Scholarship the scholar will receive a grant of £25. A scholar who is not in a position to travel at his own expense, or for whom it is not possible to obtain free passage, may make application to the Commissioners for aid towards the payment of his fare from his University to his place of study. A Scholar will receive an additional annual allowance, not exceeding £30 towards the cost of University fees, if, in the opinion of the Commissioners, he is in need of such allowance.

4 The Scholarship will be tenable ordinarily for two years, and in cases of exceptional merit for three years. The continuation of a Scholarship for a second year will depend upon the satisfactory nature of the scholar's first year's work. Renewal for a third year will be granted only where it appears that the renewal is likely to result in work of scientific importance.

5 The scholar will be required to devote himself to research in some branch of pure science, or its practical applications.

6 A scholarship may be held, with the approval of the Commissioners, at any Institution at home or abroad, but a scholar will not be permitted, except under very special circumstances, to conduct his investigations in the country in which he has received his scientific education. After consultation with the Head of the Department in which he elects to study, the scholar will submit, for the approval of the Commissioners, his proposed subject of research.

7 Scholars will be required to furnish reports of their work at the end of each year of tenure of their scholarships.

8 Scholars will be required to devote their whole time to the objects of the scholarship, and will be forbidden to hold any position of emolument which carries with it a duty inconsistent with their obligation to the Commissioners. Scholars must in any case obtain the consent of the Commissioners before accepting any additional emoluments.

9 In case of misconduct on the part of a scholar the Commissioners may, at their absolute discretion, deprive him of his scholarship and all emoluments therefrom.

The regulations adopted by the Senate are as follows —

The departments, students of which shall be eligible to be candidates, are — 1 Bacteriology, 2 Biochemistry, 3 Botany, 4 Chemistry, 5 Engineering (chemical), 6 Engineering (civil), 7 Engineering (electrical), 8 Engineering (mechanical), 9 Engineering (metallurgical), 10 Engineering (mining), 11 Forestry, 12 Geology, 13 Mineralogy, 14 Physics, 15 Physiology, 16 Zoology.

A student shall not be deemed to be ineligible because of his being on the teaching staff of the University, if he has not been in receipt of a salary of more than \$800 per annum and has not been on the teaching staff for more than two years from graduation.

A student shall be deemed to be eligible in the year in which he intends to graduate, but if nominated for the Scholarship his nomination shall be subject to his being successful in passing his examination for his degree.

The nomination of the candidate or candidates shall be made by a Board composed of seven members appointed by the Senate, and the Board shall consist of the Chancellor, the President, the Reverend Dr Bowles, the Honourable Mr Justice Masten, the Honourable Mr Justice Riddell, Dr J A Worrell and F W Harcourt, Esq, and the Board shall have power to call to its aid as assessor any member of the teaching staff.

The 1851 Exhibition Science Research scholars —

F J Smale, B A , Ph D , 1892-93, 1893-94, 1894-95

F B Kenrick, M A , Ph D , 1894-95, 1895-96, 1896-97

A M Scott, B A , Ph D , 1896-97, 1897-98

W G Smeaton, B A , Ph D , 1898-99, 1899-1900

J Patterson, B A , 1900-01, 1901-02

W C Bray, B A , 1902-03, 1903-04

E F Burton, Ph D , 1904-05, 1905-06

R H Clark, M A , 1906-07, 1907-08

C S Wright, M A , 1908-09, 1909-1910

W P Thompson, B A , 1910-11, 1911-12

A J Dempster, M A , 1912-13, 1913-14

A R McLeod, M A , 1914-15 (Bursary)

1916, 1918, 1919, no awards

A L Marshall, M A , 1920-21, 1921-22

J M Luck, B A , 1922-23, 1923-24

W L Webster, B A , 1923-24

#### THE JOHN H MOSS MEMORIAL FUND

The John H Moss Memorial Fund, the gift of friends of the late John H Moss, B A , K C , is intended to provide the annual sum of \$300 to be awarded under the following regulations

The graduating class in Arts in each of University College, Victoria College, Trinity College and St Michael's College, shall select by vote the student whom they regard as the best all-round man or woman in the final year, giving preference during the first ten years to former members of the Canadian Expeditionary Forces, or failing them, to children, brothers or sisters of such former members, or of Canadian officers or men who served at home during the war. Nominations must reach the Secretary of the Alumni Federation of the University of Toronto not later than March 1st

The award shall be made to one of the four students so selected, by a Committee of Award consisting of the President of the University, the President of the Alumni Federation and three of its members

Awarded in 1921 to H D Brown, Victoria College, and P A Child, Trinity College, *aeq* , 1922, F L Hutchison, University College, 1923, J G Endicott, Victoria College, and Miss M A Pickford, Trinity College (additional grant).

#### DAUGHTERS OF THE EMPIRE POST-GRADUATE OVERSEAS SCHOLARSHIP

This scholarship was founded by the Imperial Order, Daughters of the Empire, as part of the War Memorial of the Order. It is of the value of \$1,400, tenable for one year in any British university, the subjects of

Government of the Empire and Dominion, or any subject vital to the interest of the Empire. The scholarship is open to men or women, British subjects, unmarried, graduates of a Canadian university or in the last year of a course leading to a degree.

In awarding the scholarship, the Committee of Selection will take into consideration the War service of the candidate and of members of his or her family, and, other things being equal, will give preference to a returned man, his sister, or his son or daughter.

The scholarship will next be awarded to a candidate from Ontario in the autumn of 1925, and the successful candidate will begin his or her studies in a British university in October, 1926.

Information respecting this scholarship may be obtained from the Provincial Educational Secretary, I O D E, Y W C A Building, Main Street, Hamilton, Ontario, from whom forms of application may be secured.

#### FEDERATION SCHOLARSHIP

The Scholarship of the Federation of University Women in Canada, of the value of \$1,000, available for study or research work, is open to any woman holding a degree from a Canadian University. In general, preference will be given to those candidates who have completed at least one or two years at graduate study and have a definite research in view. The award is based on evidence of character and ability of the candidate and promise of success in the subject to which she is devoting herself.

The choice of the University at which the successful candidate shall pursue her study or research work is left to the Committee of Selection in consultation with the candidate.

There are no application blanks and application is made by letter to the Convener of the Scholarship Committee, Mrs Douglas J Thom, 2220 16th Ave., Regina, Sask., from whom further information may be obtained.

Applications and recommendations must be received not later than February 1st. None can be accepted after that date.

#### THE McCHARLES PRIZE

This prize was established in connection with the bequest of the late Aeneas McCharles of Provincial Government bonds of the value of \$10,000, and is awarded on the following terms and conditions, namely, that the interest therefrom shall be given from time to time, but not necessarily every year, like the Nobel prizes in a small way. (1) To any Canadian from one end of the country to the other, and whether student or not, who invents or discovers any new and improved process for the treatment of Canadian ores or minerals of any kind, after such process has been proved to be of special merit on a practical scale. (2) Or for any important

discovery, invention or device by any Canadian that will lessen the dangers and loss of life in connection with the use of electricity in supplying power and light, (3) Or for any marked public distinction achieved by any Canadian in scientific research in any useful practical line. The following conditions, as passed by the Board of Governors, determine the method of award —

(1) The title shall be the McCharles Prize

(2) The value of the prize shall be One Thousand Dollars (\$1,000 00) in money

(3) The term "Canadian" for the purpose of this award shall mean any person Canadian born who has not renounced British alliance, and for the purpose of the award in the first of the three cases provided for by the bequest, domicile in Canada shall be an essential condition

(4) Every candidate for the prize shall be proposed as such in writing by some duly qualified person. A direct application for a prize shall not be considered

(5) No prize shall be awarded to any discovery or invention unless the same shall have been proved to the satisfaction of the awarding body, to possess the special practical merit indicated by the terms of the bequest

(6) The order of priority in which the three cases stand in the wording of the bequest shall be observed in making the award, that is, the award shall go *caeteris paribus* to the inventor of methods of smelting Canadian ores, and, failing such inventions, to the inventor of methods for lessening the dangers attendant upon the use of electricity, and only in the third event, if no inventors of sufficient merit in the field of metallurgy and electricity present themselves, to the inventor distinguished in the general field of useful scientific research

(7) The first award was made in 1910

(8) The composition of the awarding body shall be as follows —

An expert in Mineralogy,

An expert in Electricity,

An expert in Physics,

and four other persons. All of the members of this body shall be nominated by the Board of Governors of the University of Toronto

## COURSES OF INSTRUCTION

The members of the staff indicated under the headings "The Classics", etc., in the following pages, are those of the Session 1923-1924

### THE CLASSICS

#### UNIVERSITY COLLEGE

MAURICE HUTTON, M A, LL D	<i>Professor of Greek</i>
J MACNAUGHTON, M A, LL D	<i>Professor of Latin</i>
A CARRUTHERS, M A	<i>Professor Emeritus</i>
W S MILNER, M A	<i>Professor of Greek and Roman History</i>
G OSWALD SMITH, M A	<i>Associate Professor of Latin</i>
C N COCHRANE, M A	<i>Associate Professor of Ancient History</i>
E A DALE, M A	<i>Associate Professor of Latin</i>
D E HAMILTON, M A, D PAED	<i>Associate Professor of Greek</i>
E T OWEN, M A	<i>Associate Professor of Greek</i>
A GRANT BROWN, M A	<i>Assistant Professor of Ancient History.</i>
D DUFF, M A, B D	<i>Assistant Professor of Latin</i>
MISS E HARRIS, M A	<i>Instructor in Latin</i>

#### VICTORIA COLLEGE

A J BELL, M A, PH D	<i>Professor Emeritus</i>
J C ROBERTSON, M A	<i>Professor of Greek</i>
N W DEWITT, B A, PH D	<i>Professor of Latin</i>
C B SISSONS, B A, LL D	<i>Professor of Ancient History</i>
H G ROBERTSON, B A, PH D	<i>Lecturer</i>
L A MACKAY, B A	<i>Fellow in Latin</i>

#### TRINITY COLLEGE

REV H T F DUCKWORTH, M A	<i>Professor of Ancient History</i>
W A KIRKWOOD, M A, PH D	<i>Professor of Latin</i>
J N WOODCOCK, M A	<i>Professor of Latin</i>
S M ADAMS, M A	<i>Associate Professor of Greek</i>
R E K PEMBERTON, M A	<i>Lecturer</i>
MISS S G MORLEY, M A	<i>Lecturer</i>

#### ST MICHAEL'S COLLEGE

REV HENRY CARR, B A, LL D	<i>Professor of Greek</i>
REV R McBRADY	<i>Professor of Latin</i>
REV J B WALSH, M A	<i>Associate Professor of Latin</i>
M M ESTELLE, M A	<i>Lecturer in Latin</i>
M St JOHN, B A	<i>Lecturer in Latin</i>

N B —The following books are recommended for the use of all students taking work in the Classical Department Dictionaries Greek—LIDDELL AND SCOTT, *Greek-English Lexicon* (unabridged or intermediate size), Latin—LEWIS AND SHORT, *A Latin Dictionary* (unabridged or intermediate size), Grammars Greek—GOODWIN or SMYTH, *Greek Grammar*, Latin—ALLEN AND GREENOUGH or GILDERSLEEVE AND LODGE, *Latin Grammar*, Histories of Literature Greek—GILBERT MURRAY or WRIGHT, Latin—MACKAIL, *Latin Literature*, Atlases MURRAY, *Classical Atlas* or *The Atlas of Ancient and Classical Geography* in Everyman's Library

## GREEK

### PASS COURSES

1a Translation at sight of passages of ordinary difficulty from Xenophon's historical works, Greek Grammar (including sentences to test 'accidence' and syntax), NORTH AND HILLARD, *Greek Prose Composition*, Exercises A, pages 1-85, BELL, *Second Greek Reader* Four hours a week

1b HILLARD AND BOTTING, *Elementary Greek Translation Book*

(This course may be taken only by those specially recommended by their College, and the course must be continued through all four years)

2a Translation at sight of easy passages of Greek, Greek Grammar, translation from English into Greek of sentences based on NORTH AND HILLARD, *Greek Prose Composition*, pages 1-155 inclusive, EURIPIDES, *Medea*, THUCYDIDES, I Chap. 89-117, 128-138 both inclusive Three hours a week

2b EDWARDS, *Salamis*, FREEMAN AND LOWE, *Greek Reader*, Translation at sight (This course is for those who have completed 1b)

3a PURVES, *Selections from Plato* (approximately sixty pages), Translation at sight To be read in English additional prescribed portions of Plato, THUCYDIDES, *Pericles' Funeral Speech*, DEMOSTHENES, *Philippic I* DICKINSON, *Greek View of Life*, GRANT, *Age of Pericles* Three hours a week

4a HOMER, *Iliad* I, 1-350, VI, 237 to end, XXII, *Odyssey*, VI and IX, SOPHOCLES, *Œdipus Rex*, Translation at sight To be read in English. SOPHOCLES, *Antigone*, EURIPIDES, *Medea*, ARISTOPHANES, *Birds* BUTCHER, *Aspects of Greek Genus*, Chaps 1 and 2, and *Harvard Lectures*, Chaps 1, 2 and 3, LIVINGSTONE, *Greek Genus*, JEBB, *Classical Greek Poetry* Three hours a week

### HONOUR COURSES

1c *Classics* Grammar, translation at sight, prose composition, HOMER *Iliad* XXII and XXIV, with additional translation of Homer at sight, EURIPIDES, *Iphigeneia in Tauris*, PLATO, *Apology*, THUCYDIDES, I, 89-117, 128-138, DEMOSTHENES, *Philippic I*, *Olynthiacs* I, III Five hours a week

1d *English and History* The same as 1c, omitting DEMOSTHENES  
Four hours a week

1e *Greek and Hebrew* The same as 1c Five hours a week

1f *French, Greek and Latin* The same as 1c, omitting THUCYDIDES.  
Four and a half hours a week

1g *Philosophy, English and History* prose composition, PLATO and THUCYDIDES, as in 1c Four hours a week

2c *Classics* Grammar, translation at sight, prose composition, ARISTOPHANES, *Birds*, *Clouds*, THEOCRITUS, *Idylls* I, II, VII, XV; PLATO, *Crito*, *Laches*, THUCYDIDES IV, 1-41, 58-65, 76-108, with additional translation from Thucydides and Plato at sight, JEBB, *Classical Greek Poetry* Five hours a week

2d *English and History* The same as 2c, omitting Greek Grammar and THUCYDIDES Three hours a week

2e *Greek and Hebrew* Translation at sight, ARISTOPHANES, *Clouds*, THEOCRITUS and PLATO as in 2c Two hours and a half a week

2f *French, Greek and Latin* The same as 2c, omitting THUCYDIDES  
Four hours and a half a week

2g Hellenistic Greek CONYBEARE AND STOCK, *Selections from the Septuagint* One hour a week

3b *Classics* Grammar, translation at sight, prose composition, HERODOTUS, VII, VIII, IX, THUCYDIDES, I, II, SOPHOCLES, *Œdipus Rex*, *Ajax*, PLATO, *Republic* I-IV, ARISTOTLE, *Ethics* I-IV, X (6-9), ancient philosophy including (a) Greek speculative theories before Socrates, (b) Socrates and his contemporaries, (c) the doctrines of Plato and Aristotle an elementary course with special reference to the prescribed texts, and in addition to the Greek texts here prescribed the student should read GROTE, *History of Greece*, Chapters LXVII and LXVIII, and CUSHMAN, *Beginner's History of Philosophy*, or ROGERS, *Student's History of Philosophy* Seven hours a week

3c *English and History* PLATO, as in 3b Two hours a week.

3d *English and History (Special Option)* ARISTOTLE, as in 3b One hour a week

3e *Greek and Hebrew* PLATO, ARISTOTLE, and History of Greek Philosophy, as in 3b Four hours a week

3f *French, Greek and Latin* The same as 3b, omitting HERODOTUS Six hours a week

3g Hellenistic Greek, Grammar and Philology, *The Wisdom of Solomon*, *Selections from Wisdom of Ben Sira* One hour a week

3h Essays on prescribed topics



4b. *Classics*: Historical grammar of Greek and Latin; translation at sight; prose composition; THUCYDIDES, III, IV, V (84-122), VI, VII; PLATO, *Republic*; ARISTOTLE, *Politics* (selections), *Poetics* (with the history of the Greek genius and Greek poetry); AESCHYLUS, *Agamemnon*; EURIPIDES, *Iphigenia in Tauris*. Seven hours a week.

4c. *English and History*: ARISTOTLE, *Poetics* as in 4b. A knowledge of Greek is not essential for this course. One hour a week.

4d. *English and History (Special Option)*: PLATO, *Republic* as in 4b. One hour a week.

4e. *Greek and Hebrew*: PLATO, *Republic*; History of Philosophy with special reference to Philo, Neo-Platonism, and the Stoicism of the Empire. Three hours a week.

4f. *French, Greek and Latin*: The same as 4b, omitting THUCYDIDES. Six hours a week.

4g. *Hellenistic Greek*: Grammar and Philology; ARISTAEUS; Selections from Patristic Literature. Two hours a week.

4h. A course of reading to be approved by the Department, with essays on prescribed topics.

## LATIN

### PASS COURSES

1a. Translation at sight of Latin similar to the prescribed Cicero; translation into Latin of sentences based on the prescribed Cicero; translation of passages from the prescribed Horace; questions on grammar and prosody, and on the subject-matter of the prescribed texts; CICERO, *In Catilinam* I, III; HORACE, selected *Odes*. Four hours a week.

1b. The same as 1d. Four hours a week.

2a. Translation at sight of Latin similar to the prescribed Livy; translation into Latin of sentences to illustrate Latin syntax; translation into Latin of simple narrative based on the prescribed Livy; translation of passages from the prescribed Catullus; questions on grammar and prosody and on the subject-matter of the prescribed texts; LIVY, Selections from Books XXI-XXX (Dennison, sixty pages); CATULLUS (Simpson). Three hours a week.

3a. *Course for 1924-1925*: Grammar; translation at sight; prose composition; CICERO, *Pro Archia*; VIRGIL, *Eclogues* I, IV, VI, VIII, *Aeneid* VI; PLINY, selected *Letters* (Prichard and Bernard); MACKAIL, *History of Latin Literature*. Three hours a week.

3a. *Course for 1925-1926*: Grammar; translation at sight; prose composition; TACITUS, *Agricola*; HORACE, *Epistles* I, omitting 17 and 18; JUVENAL, *Satires* I, III, X; PLINY, *The Death of the Elder Pliny*, *The Eruption of Vesuvius*, *The Christians*, *Trajan's Reply on the Christians*; WARDE FOWLER, *Social Life at Rome in the Age of Cicero*. Three hours a week.

4a. Same as 3a. Three hours a week.

NOTE 1. Students of the Fourth Year who have not passed in the Latin of their Third Year will be required at the B.A. examination of 1924 to take an additional paper on the work of the alternative course.

NOTE 2. Students of the Fourth Year who, through absence from the University, have not taken the two Latin courses in consecutive years will, at their Final Examination, be required to take the paper on the authors prescribed in 3a which they did not take in their Third Year.

### HONOUR COURSES

1c. *Classics*: Grammar, including prosody; translation at sight; prose composition; CATULLUS (Simpson); VIRGIL, *Georgics* I, IV; HORACE, *Odes* (selected); CICERO, *Philippic* II, *De Amicitia*, with additional translation of Cicero at sight. Four to five hours a week.

1d. *English and History*: The same as 1c, omitting VIRGIL, *Georgics* I, and CICERO, *Philippic* II. Four hours a week.

1e. *French, Greek and Latin*: The same as 1c, omitting VIRGIL, *Georgics* I. Four hours and a half a week.

2b. *Classics*: Grammar; translation at sight; prose composition; PLAUTUS, *Rudens*; TERENCE, *Phormio*; VIRGIL, *Aeneid* I-VI; LIVY, XXI; with additional translation from Livy at sight; TACITUS, *Agricola*; MACKAIL, *History of Latin Literature*. Five to six hours a week.

2c. *English and History*: The same as 2b, omitting Latin Grammar, VIRGIL, *Aeneid* I-III, and LIVY. Three hours a week.

2d. *French, Greek and Latin*: The same as 2b. Four hours and a half a week.

3b. *Classics*: Grammar; translation at sight; prose composition; CICERO, *Letters* (Books I and II of Watson's selections); CAESAR, *Civil War* I; SALLUST, *Catiline*; VIRGIL, *Aeneid* VII-XII; HORACE, *Epistles* (selected), *Satires* (selected); LUCRETIVUS V and selections from I. Six hours a week.

3c. *English and History*: HORACE and LUCRETIVUS as in 3b. Two hours a week.

3d. *English and History* (special option): CICERO, CAESAR and SALLUST as in 3b. One hour a week.

3e. *French, Greek and Latin*: The same as 3b, omitting CICERO. Five hours a week.

3f. Essays on prescribed topics.

4b. *Classics*: Historical grammar of Greek and Latin; translation at sight; prose composition; CICERO, *Letters* (Books III-V of Watson's selections); CAESAR, *Civil War*; HORACE, *Ars poetica*; QUINTILIAN X; TACITUS, *Annals* III-VI, *Agricola*; JUVENAL, *Satires* I, III, V, X; MARTIAL (selections); history of post-Aristotelian philosophy. Five hours a week.

4c. *English and History*: CICERO and CAESAR as in 4b. Two hours a week.

4d. *French, Greek and Latin*: The same as 4b, omitting historical grammar and CICERO, and adding BROWNRIGG, *Latin Prose of the Silver Age* (selections); LUCAN, Book VIII; SENECA, *Hercules Furens*.

4e. A course of reading to be approved by the Department, with essays on prescribed topics.

## GREEK AND ROMAN HISTORY

### PASS AND HONOUR COURSE

1. General History of Greece to 146 B.C. General History of Rome to A.D. 476. GOODSPEED, *History of the Ancient World*; BURY, *Student's History of Greece* (Kimball); PELHAM, *Outlines of Roman History*. The course aims at a simple outline of the general historical movement in the Græco-Roman world and at an appreciation of the most characteristic features of Mediterranean civilization.

### PASS COURSES

2a. A more mature study of Greek History based on Herodotus, Thucydides and Plutarch; criticism of the City State.

3a. The Roman Empire from the period of the Great Wars to the death of Caesar; the Greek philosophers, Hellenism and the influence of Greece on Rome.

4a. The Empire from Augustus to Justinian, Græco-Roman Civilization; Christianity in the Roman Empire.

### HONOUR COURSES

2b. The city-state of the Greeks and Romans.

3b. Greek History to 431 B.C.

3c. Roman History from 133 B.C. to 49 B.C.

4b. Greek History from 431 B.C. to 399 B.C.; general questions on Greek History.

4c. Roman History from 49 B.C. to 37 A.D.

4d. Roman Institutions: GREENIDGE, *Roman Public Life*; WARDE FOWLER, *The Religious Experience of the Roman People*; DELOUME, *Les Manieurs d'argent à Rome*; SALVIOLI, *Capitalisme*.

## ORIENTAL LANGUAGES

### UNIVERSITY COLLEGE:

J. F. MCCURDY, PH.D., LL.D.....	Professor Emeritus.
W. R. TAYLOR, PH.D.....	Professor.
T. J. MEEK, B.A., B.D., PH.D.....	Professor.
W. A. IRWIN, M.A., D.B.....	Assistant Professor.

## VICTORIA COLLEGE:

REV. J. F. McLAUGHLIN, B.A., D.D.....	<i>Professor.</i>
S. H. HOOKE, M.A., B.D.....	<i>Professor.</i>
REV. W. A. POTTER, M.A., B.D.....	<i>Associate Professor.</i>

## TRINITY COLLEGE:

REV. S. A. B. MERCER, M.A., PH.D., D.D.....	<i>Professor.</i>
REV. W. ROLLO, M.A.....	<i>Lecturer.</i>

## PASS COURSES

1a. A course in the history of the Hebrew people from the Exodus to 586 B.C.; a literary study of the books of Amos, Hosea, Isaiah and Micah. One hour a week.

1b. Hebrew Grammar; translation from Hebrew into English of Gen. 1-4, 18; Pss. 1, 8, 24; translation from English into Hebrew. Introduction to Oriental History. DAVIDSON, *Hebrew Grammar*; KITTEL, *Biblia Hebraica*; BREASTED, *Ancient Times*. Four hours a week.

2a. A course in the history of the Hebrew people from 586 to 4 B.C.; a study of the Prophetic, Legal and Historical Literature of the Old Testament. Two hours a week.

2b. Hebrew Grammar with special attention to syntax; translation from English into Hebrew; translation into English of *Genesis* 37, 40-45; *Ex.* 3, 4, 15; *Ruth*; *II Samuel* 14-19; history of the Massoretic Text and the Versions; outlines of the geography of Palestine. The sources of Hebrew Literature; DAVIDSON, *Hebrew Grammar*; KITTEL, *Biblia Hebraica*; BROWN, DRIVER AND BRIGGS, *Lexicon*. Three hours a week.

3a. A literary study of the Poetical books of the Old Testament and of the Synoptic Gospels. Three hours a week.

3b. Translation from English into Hebrew; Hebrew history from the settlement in Canaan to the end of the Kingdom (586 B.C.). Translation into English of *Amos*; *Isaiah* 1-6, 40-45 and 52-55; *II Kings* 15-25; *Deuteronomy* 5-11; KITTEL, *Biblia Hebraica*; DAVIDSON, *Hebrew Grammar*; DAVIDSON, *Hebrew Syntax*; BROWN, DRIVER AND BRIGGS, *Lexicon*; KENT, *A History of the Hebrew People*, Vols. II and III. Three hours a week.

4a. A literary and historical study of Christianity and of its fore-runners. Three hours a week.

4b. Translation from English into Hebrew; characteristics of Hebrew poetry; Jewish history from the fall of Jerusalem 586 B.C. to the end of the Maccabean period. Translation into English of selected *Psalms*, 100, 95, 24, 15, 48, 87, 114, 81, 147, 148, 150, 46, 47, 93, 97, 8, 19, 29, 103, 104, 65, 67, 118, 21, 116, 30, 74, 89, 90, 20, 72, 42, 43, 22, 51, 137, 84, 122, 110, 107, 23, 78, 127, 133, 45; *Zechariah* 1-8; *Jonah*; *II Chronicles* 1-9; KITTEL, *Biblia Hebraica*; DAVIDSON, *Hebrew Syntax*; GESENIUS-KAUTZSCH, *Hebrew Grammar*; KENT, *History of the Jewish People*, Vols. III and IV. Three hours a week.

## HONOUR COURSES

2c. *Orientalis, Greek and Hebrew*: Hebrew Grammar with special attention to syntax. Translation into English, the same as 2b. Hebrew prose exercises. DAVIDSON, *Hebrew Grammar*; DAVIDSON, *Hebrew Syntax*. Three hours a week.

2d. *Orientalis, Greek and Hebrew*: Translation into English of the *Book of Judges* 1-12; *I Sam.* 9-19; *II Kings* 17-23. Two hours a week.

2e. *Orientalis*: Translation into English of *Exodus* 5-12: 18-21: 34, 14-27; *Lev.* 8-10; *Deut.* 8-13; outlines of Hexateuchal Problems. Two hours.

2f. *Orientalis*: Grammar of Palestinian Aramaic with translation of extracts from BAER AND DELITZSCH, *Text of Daniel and Ezra*; MARTI *Biblisch-Armaeische Grammatik*. Introduction to Syriac Grammar. ROBINSON, *Syriac Grammar*. Two hours a week.

2g. *Orientalis, Greek and Hebrew*: History of the Western Orient until 745 B.C. H. R. HALL, *The Ancient History of the Near East* (revised edition). One hour a week.

3c. *Orientalis, Greek and Hebrew*: Translation into English, the same as 3b. Three hours a week.

3d. *Orientalis, Greek and Hebrew*: Translation into English of selections from *Isaiah* 1-39. Two hours a week.

3e. *Orientalis*: Translation into English of selections from *Jeremiah*, *Ezekiel*, and the Minor Prophets. Two hours a week.

3f. *Orientalis*: Hebrew prose composition and sight translation. GESENIUS-KAUTZSCH, *Hebrew Grammar*. One hour a week.

3g. *Orientalis, Greek and Hebrew*: History of the Western Orient from 745 B.C. to 330 B.C., with special attention to the history, literature and institutions of the Hebrews. One hour a week.

3h. *Orientalis*: Arabic First Course; THATCHER, *Arabic Grammar* with exercises in translating easy prose into English. Two hours a week.

3i. *Orientalis*: Advanced course in Aramaic or Syriac. ROBINSON'S *Syriac Grammar*; BROCKELMANN'S *Syrische Grammatik*. Two hours a week.

3j. *Orientalis*: Elements of Assyrian; FR. DELITZSCH, *Assyrische Lesestücke*. Outlines of Comparative Grammar of the Semitic Languages; BROCKELMANN, *Vergleichende Grammatik*. Two hours a week.

4c. *Orientalis, Greek and Hebrew*: Translation into English, the same as 4b. Three hours a week.

4d. *Orientalis, Greek and Hebrew*: Translation into English of selections from *Job*, *Proverbs* and *Ecclesiastes*. One hour a week.

4e. *Orientalis*: Selections from Late Biblical or Post-Biblical Hebrew. One hour a week.

4f. *Orientalis*: Hebrew prose composition and sight translation. DAVIDSON, *Hebrew Syntax*. One hour a week.

4g. *Orientalis, Greek and Hebrew*: History of the Western Orient from 330 B.C. to 135 A.D. with special attention to the history and literature of the Jews, and the History of Mahomet and the Caliphate. One hour a week.

4h. *Orientalis*: Arabic Second Course; THATCHER, *Arabic Grammar* (continued); BRÜNNOW, *Chrestomathy of Arabic Prose Selections*; HARDER, *Arabic Chrestomathy*. Two hours a week.

4i. *Orientalis*: Advanced course in Aramaic or Syriac; NÖLDEKE, *Syriac Grammar, Selected Texts*. Two hours a week.

4j. *Orientalis*: Advanced course in Assyrian. Inscriptions of Sennacherib, Sargon, Asurbanipal. Two hours a week.

## ENGLISH

### UNIVERSITY COLLEGE:

W. J. ALEXANDER, PH.D., LL.D.....	Professor.
D. R. KEYS, M.A.....	Professor Emeritus.
M. W. WALLACE, B.A., PH.D.....	Professor.
R. S. KNOX, M.A.....	Associate Professor.
H. J. DAVIS, M.A.....	Associate Professor.
W. H. CLAWSON, M.A., PH.D.....	Assistant Professor.
MRS. M. M. KIRKWOOD, PH.D.....	Lecturer (part time).
MISS G. E. WOOKEY, M.A.....	Lecturer.
MISS A. LOBB, B.A.....	Instructor.
P. A. W. WALLACE, M.A.....	Instructor.

### VICTORIA COLLEGE:

O. P. EDGAR, B.A., PH.D.....	Professor.
L. E. HORNING, B.A., PH.D.....	Professor.
C. E. AUGER, B.A.....	Professor.
E. J. PRATT, PH.D.....	Lecturer.

### TRINITY COLLEGE:

H. C. SIMPSON, M.A.....	Professor.
L. C. A. HODGINS, M.A.....	Associate Professor.
MISS MABEL CARTWRIGHT, B.A.....	Lecturer.
P. A. CHILD, M.A.....	Lecturer.

### ST. MICHAEL'S COLLEGE:

REV. E. J. MCCORKELL, M.A.....	Associate Professor.
M. M. MARGARITA, B.A.....	Lecturer in Anglo-Saxon.
M. M. ATHANASIA, M.A.....	Lecturer.

Composition: In the first two years of the undergraduate course original essays are required during the session from students taking the Pass and Honour Courses in English, even from those who have received dispensation from attendance upon lectures. These essays, after being care-

ully examined, are returned with suggestions and criticisms, and the marks assigned are reckoned in determining standing in the May examinations.

Throughout the course Composition shall be regarded as a subject distinct from literature, and candidates failing to secure the necessary standing in these essays are required to repeat the work of the year in English Composition.

Provision will be made by a special paper in English composition for the examination of those candidates for Senior Matriculation who are not in attendance, and who have not presented the essays required.

#### PASS COURSES

1a. Composition: The writing of at least four original compositions during the session.

1b. Familiarity with and intelligent appreciation of the following texts: *Sir Patrick Spens, Edward, The Braes o' Yarrow, Waly Waly*; DRYDEN, extracts from *Absalom and Achitophel*; POPE, *Rape of the Lock*; THOMSON, extracts from *Summer and Winter*; GRAY, *Spring, Eton College, Elegy*; GOLDSMITH, *Deserted Village*; BURNS, *Address to the Deil, To John Lapraik, To a Mouse, Tam o' Shanter, Last May a Braw Wooer, A Man's a Man for a' that*; WORDSWORTH, *Sonnets*; SCOTT, *Rosabelle, Brignall Banks, Loch-in-var, Old Mortality*; KEATS, *On Chapman's Homer, "Bright Star! would I", The Eve of St. Agnes, On a Grecian Urn, To a Nightingale, To Autumn*; BROWNING, *Fra Lippo Lippi, The Bishop orders his Tomb, An Epistle*; HUXLEY, *A Piece of Chalk*; MORRIS, *The Lesser Arts*; BRYCE, *University Instruction*; HARDY, *The Return of the Native*; selections from Canadian and recent British poetry. [The poetical selections in this paragraph are contained in *Representative Poetry* and *An Anthology of Modern Verse* (Methuen).] Two hours a week.

2a. Composition: The writing of at least four original compositions during the session.

2b. SHAKESPEARE, with special study of *Romeo and Juliet, Henry IV, Parts I and II, Twelfth Night, Hamlet*. Two hours a week.

3a. The writing of essays on subjects connected with one of the Third Year courses in literature.

3b. (i) Eighteenth century literature with special study of the following texts: DEFOE, *Robinson Crusoe* and *Selections*, edited by Masfield (Bell); SWIFT, *Gulliver's Travels*; ADDISON, *Select Essays* (edited by J. R. Green, Macmillan); JOHNSON, *Preface to Shakespeare, Lives of Addison and Pope*; FIELDING, *Tom Jones*; GOLDSMITH, *She Stoops to Conquer*; BOSWELL, *Life of Johnson* (May 16, 1763-end of 1764; April 3, 1773-end of May, 1773; March 21, 1775-May 21, 1775); BURKE, *Reflection on the French Revolution*; THACKERAY, *Esmond*; the selections from SWIFT, POPE, BURNS, BLAKE, CRABBE in *Representative Poetry*.

(ii) MILTON, selections in *Representative Poetry, Areopagitica*.

Three or two hours a week.

4a. The writing of essays on subjects connected with one of the Fourth Year courses in literature.

4b. Later nineteenth-century literature: selections from SHELLEY to MORRIS in *Representative Poetry*; selections from *An Anthology of Modern Verse* (Methuen); essays by SHELLEY and MILL in *English Critical Essays of the Nineteenth Century* (World's Classics); CARLYLE, *Sartor Resartus* (Books I and II); DICKENS, *Great Expectations*; THACKERAY, *Vanity Fair*; ARNOLD, *The Function of Criticism, The Literary Influence of Academies*. Three or two hours a week.

# HONOUR COURSES

1a. Composition: The writing of at least four original compositions during the session.

1c. CHAUCER, *Prologue, Nun's Priest's Tale, Squire's Tale*, with some outline of the history of the English language. One hour a week.

1d. Familiarity with and intelligent appreciation of the following texts: *Sir Patrick Spens, Edward, The Braes o' Yarrow, Waly Waly*; GRAY, *Spring, Eton College, Elegy*; BURNS, *Address to the Deil, To John Lapraik, To a Mouse, Tam o' Shanter, Last May a Braw Wooer*; WORDSWORTH, *Sonnets*; SCOTT, *Rosabelle, Brignall Banks, Lochinvar, Old Mortality*; KEATS, *On Chapman's Homer, "Bright Star, would I", The Eve of St. Agnes, On a Grecian Urn, To a Nightingale, To Autumn*; CARLYLE, *Signs of the Times*; GEORGE ELIOT, *The Mill on the Floss*; BROWNING, *Fra Lippo Lippi, The Bishop orders his Tomb, An Epistle*; HUXLEY, *A Piece of Chalk, Administrative Nihilism*; ARNOLD, *The Study of Poetry*; MORRIS, *The Lesser Arts*; BRYCE, *University Instruction*; HARDY, *The Return of the Native*; selections from Canadian and recent British poetry. [The poetical selections in this paragraph are contained in *Representative Poetry* and *An Anthology of Modern Verse* (Methuen).] Two hours a week.

2a. Composition: The writing of at least four original compositions during the session.

2b. SHAKESPEARE, with special study of *Romeo and Juliet, Henry IV, Parts I and II, Twelfth Night, Hamlet*. Two hours a week.

2c. An outline of sixteenth century literature with special study of the following texts: MORE, *Utopia*; ASCHAM, *The Scholemaster*; SIDNEY, *Apology for Poetry*; HAKLUYT, *Voyages of Gilbert and Drake*; HOOKER, *Ecclesiastical Polity, Book I*; BACON, *Selected Essays, Advancement of Learning, Book I* to the beginning of his treatment of "the Dignity of Knowledge"; SPENSER, *Faerie Queene, Book I*; the selections from Wyatt to Hall in *Representative Poetry*. Two hours a week.

3a. The writing of essays on subjects connected with one of the Third Year courses in literature.

3b (i). Eighteenth century literature with special study of the following texts: DEFOE, *Robinson Crusoe, Selections*, edited by Masefield (Bell).



SWIFT, *Gulliver's Travels*; ADDISON, *Select Essays*, edited by J. R. Green (Macmillan); JOHNSON, *Preface to Shakespeare, Lives of Addison and Pope*; FIELDING, *Tom Jones*; GOLDSMITH, *She Stoops to Conquer*; BOSWELL, *Life of Johnson* (May 16, 1763-end of 1764; April 3, 1773-end of May, 1773; March 21, 1775-May 21, 1775); BURKE, *Reflections on the French Revolution*; THACKERAY, *Esmond*; the selections from SWIFT, POPE, BURNS, BLAKE, CRABBE in *Representative Poetry*.

(ii) MILTON, selections in *Representative Poetry, Areopagitica*.

Three or two hours a week.

3c. BRIGHT, *Old English Grammar* and selections from the *Reader*; outlines of Old English literature. Two hours a week.

3d. Seventeenth-century literature with special study of MILTON, *L'Allegro, Il Penseroso, Arcades, Comus, Lycidas, Sonnets, Paradise Lost, Paradise Regained, Samson Agonistes*; selections from JONSON to BUTLER inclusive in *Representative Poetry*; MILTON, *Of Reformation, The Reason of Church Government, Of Education, Areopagitica*; BROWNE, *Religio Medici*. Two hours a week.

3e. Eighteenth century literature as in 3b (i) together with the omitted selections from DRYDEN to CRABBE inclusive in *Representative Poetry* and DRYDEN, *Essay of Dramatic Poesy*. Three or two hours a week.

4a. The writing of essays on subjects connected with one of the Fourth Year courses in literature.

4b. Later nineteenth-century literature: selections from SHELLEY to MORRIS in *Representative Poetry*; selections from *An Anthology of Modern Verse* (Methuen); essays by SHELLEY and MILL in *English Critical Essays of the Nineteenth Century* (World's Classics); CARLYLE, *Sartor Resartus* (Books I and II); DICKENS, *Great Expectations*; THACKERAY, *Vanity Fair*; ARNOLD, *The Function of Criticism, The Literary Influence of Academies*. Three or two hours a week.

4c. (i) Historical English grammar.

(ii) *Beowulf*, lines 1-836, 1321-1382, 1492-1611, 3137-3182; CHAUCER, *Troilus and Criseyde*, Book I, *Prologue to the Legend of Good Women, Sir Thopas, Pardoner's Tale*. Two hours a week.

4d. NEWMAN, *Apologia, The Idea of a University, Preface and Discourses V-VIII*; J. S. MILL, *Essays on Bentham, Coleridge, Civilization, Utilitarianism, Liberty*; CARLYLE, *Past and Present, Book III, Shooting Niagara—and After?*; RUSKIN, *Unto this Last*; ARNOLD, *Culture and Anarchy, Democracy, Equality*; MORLEY, *Compromise*. Two hours a week.

4e. The Development of the English Drama to 1642: reading of the following texts: *Noah's Flood, The Sacrifice of Isaac, Secunda Pastorum, Everyman* (Pollard's *Miracle Plays*); UDALL, *Ralph Roister Doister*; LYL, *Endymion*; GREENE, *Friar Bacon*; MARLOWE, *Tamburlaine, Part I*,

*Edward II*; KYD, *Spanish Tragedy*; SHAKESPEARE, *Othello*, *King Lear*, *Antony and Cleopatra*, *The Tempest*; BEN JONSON, *Every Man in his Humour*; BEAUMONT AND FLETCHER, *Philaster*; WEBSTER, *Duchess of Malfi*. Two hours a week.

# GERMAN

## UNIVERSITY COLLEGE:

W. H. VAN DER SMISSEN, M.A., PH.D.....	<i>Professor Emeritus.</i>
G. H. NEEDLER, B.A., PH.D.....	<i>Professor.</i>
B. FAIRLEY, M.A., PH.D.....	<i>Associate Professor.</i>
T. HEDMAN, PH.B.....	<i>Assistant Professor.</i>
G. E. HOLT, M.A., MUS.BAC.....	<i>Lecturer.</i>

## VICTORIA COLLEGE:

L. E. HORNING, B.A., PH.D.....	<i>Professor.</i>
A. E. LANG, M.A.....	<i>Professor.</i>
MISS M. E. T. ADDISON, B.A.....	<i>Lecturer.</i>
J. D. ROBINS, M.A.....	<i>Lecturer.</i>

## TRINITY COLLEGE:

A. H. YOUNG, M.A., D.C.L.....	<i>Professor.</i>
MISS L. C. SCOTT, M.A.....	<i>Associate Professor.</i>

## ST. MICHAEL'S COLLEGE:

REV. E. J. WELTY, B.A.....	<i>Associate Professor.</i>
M. PERPETUA, B.A.....	<i>Lecturer.</i>

# PASS COURSES

1a. Grammar; dictation; pronunciation; translation from modern German; translation from English into German. Four hours a week.

1b. Reading of easy prescribed texts in scientific German; translation of similar passages at sight. Two hours a week.

2a. Grammar; dictation; pronunciation; translation from modern German; translation from English into German. Three hours a week.

2b. Reading of prescribed texts in scientific German; translation of scientific German at sight. Two hours a week.

3a. Grammar; dictation; pronunciation; translation from English into German; translation at sight from modern German; outlines of the history of German literature to 1740; life and works of LESSING and SCHILLER, with special attention to LESSING, *Minna von Barnhelm*; SCHILLER, *Poems* (ed. Nollen), *Maria Stuart*. Supplementary reading. Three hours a week.

SWIFT, *Gulliver's Travels*; ADDISON, *Select Essays*, edited by J. R. Green (Macmillan); JOHNSON, *Preface to Shakespeare, Lives of Addison and Pope*; FIELDING, *Tom Jones*; GOLDSMITH, *She Stoops to Conquer*; BOSWELL, *Life of Johnson* (May 16, 1763-end of 1764; April 3, 1773-end of May, 1773; March 21, 1775-May 21, 1775); BURKE, *Reflections on the French Revolution*; THACKERAY, *Esmond*; the selections from SWIFT, POPE, BURNS, BLAKE, CRABBE in *Representative Poetry*.

(ii) MILTON, selections in *Representative Poetry, Areopagitica*.

Three or two hours a week.

3c. BRIGHT, *Old English Grammar* and selections from the *Reader*; outlines of Old English literature. Two hours a week.

3d. Seventeenth-century literature with special study of MILTON, *L'Allegro, Il Penseroso, Arcades, Comus, Lycidas, Sonnets, Paradise Lost, Paradise Regained, Samson Agonistes*; selections from JONSON to BUTLER inclusive in *Representative Poetry*; MILTON, *Of Reformation, The Reason of Church Government, Of Education, Areopagitica*; BROWNE, *Religio Medici*. Two hours a week.

3e. Eighteenth century literature as in 3b (i) together with the omitted selections from DRYDEN to CRABBE inclusive in *Representative Poetry* and DRYDEN, *Essay of Dramatic Poesy*. Three or two hours a week.

4a. The writing of essays on subjects connected with one of the Fourth Year courses in literature.

4b. Later nineteenth-century literature: selections from SHELLEY to MORRIS in *Representative Poetry*; selections from *An Anthology of Modern Verse* (Methuen); essays by SHELLEY and MILL in *English Critical Essays of the Nineteenth Century* (World's Classics); CARLYLE, *Sartor Resartus* (Books I and II); DICKENS, *Great Expectations*; THACKERAY, *Vanity Fair*; ARNOLD, *The Function of Criticism, The Literary Influence of Academies*. Three or two hours a week.

4c. (i) Historical English grammar.

(ii) *Beowulf*, lines 1-836, 1321-1382, 1492-1611, 3137-3182; CHAUCER, *Troilus and Criseyde*, Book I, *Prologue to the Legend of Good Women, Sir Thopas, Pardoner's Tale*. Two hours a week.

4d. NEWMAN, *Apologia, The Idea of a University, Preface and Discourses V-VIII*; J. S. MILL, *Essays on Bentham, Coleridge, Civilization, Utilitarianism, Liberty*; CARLYLE, *Past and Present, Book III, Shooting Niagara—and After?*; RUSKIN, *Unto this Last*; ARNOLD, *Culture and Anarchy, Democracy, Equality*; MORLEY, *Compromise*. Two hours a week.

4e. The Development of the English Drama to 1642: reading of the following texts: *Noah's Flood, The Sacrifice of Isaac, Secunda Pastorum, Everyman* (Pollard's *Miracle Plays*); UDALL, *Ralph Roister Doister*; LYL, *Endymion*; GREENE, *Friar Bacon*; MARLOWE, *Tamburlaine, Part I*,

*Edward II*; KYD, *Spanish Tragedy*; SHAKESPEARE, *Othello*, *King Lear*, *Antony and Cleopatra*, *The Tempest*; BEN JONSON, *Every Man in his Humour*; BEAUMONT AND FLETCHER, *Philaster*; WEBSTER, *Duchess of Malfi*. Two hours a week.

# GERMAN

## UNIVERSITY COLLEGE:

W. H. VAN DER SMISSEN, M.A., PH.D.....	<i>Professor Emeritus.</i>
G. H. NEEDLER, B.A., PH.D.....	<i>Professor.</i>
B. FAIRLEY, M.A., PH.D.....	<i>Associate Professor.</i>
T. HEDMAN, PH.B.....	<i>Assistant Professor.</i>
G. E. HOLT, M.A., MUS.BAC.....	<i>Lecturer.</i>

## VICTORIA COLLEGE:

L. E. HORNING, B.A., PH.D.....	<i>Professor.</i>
A. E. LANG, M.A.....	<i>Professor.</i>
MISS M. E. T. ADDISON, B.A.....	<i>Lecturer.</i>
J. D. ROBINS, M.A.....	<i>Lecturer.</i>

## TRINITY COLLEGE:

A. H. YOUNG, M.A., D.C.L.....	<i>Professor.</i>
MISS L. C. SCOTT, M.A.....	<i>Associate Professor.</i>

## ST. MICHAEL'S COLLEGE:

REV. E. J. WELTY, B.A.....	<i>Associate Professor.</i>
M. PERPETUA, B.A.....	<i>Lecturer.</i>

# PASS COURSES

1a. Grammar; dictation; pronunciation; translation from modern German; translation from English into German. Four hours a week.

1b. Reading of easy prescribed texts in scientific German; translation of similar passages at sight. Two hours a week.

2a. Grammar; dictation; pronunciation; translation from modern German; translation from English into German. Three hours a week.

2b. Reading of prescribed texts in scientific German; translation of scientific German at sight. Two hours a week.

3a. Grammar; dictation; pronunciation; translation from English into German; translation at sight from modern German; outlines of the history of German literature to 1740; life and works of LESSING and SCHILLER, with special attention to LESSING, *Minna von Barnhelm*; SCHILLER, *Poems* (ed. Nollen), *Maria Stuart*. Supplementary reading. Three hours a week.

4a. Grammar; dictation; pronunciation; translation from English into German; translation at sight from modern German; outlines of the history of German literature from 1740; life and works of GOETHE with special attention to *Poems* (ed. Schütze), *Hermann und Dorothea*. Supplementary reading. Three hours a week.

#### HONOUR COURSES

1c. Translation at sight from modern German; FIEDLER, *Book of German Verse* (pages 1-143); KELLER, *Das Fähnlein der sieben Aufrechten*; LESSING, *Minna von Barnhelm*. Supplementary reading. Two hours a week.

1d. Oral term work; composition. Two hours a week.

1e. Political and social history of Germany to 1500.

1f. Composition; writing of business letters; practice in reading and writing German script; oral exercises. One hour a week.

1g. Reading of selected texts in German. Two hours a week.

1h. German pronunciation and phonetics. One half-hour a week.

2c. Translation at sight from modern German; history of German literature in the eighteenth century with special attention to LESSING and SCHILLER; LESSING, *Emilia Galotti*, *Nathan der Weise*; SCHILLER, *Kabale und Liebe*, *Wallensteins Tod*. Supplementary reading. Two hours a week.

2d. Oral term work; composition. One hour a week.

2e. Political and social history of Germany from 1500 to 1713. One hour a week.

2f. Reading of German texts; practice in business correspondence and conversation in German. Three hours a week.

3b. Life and works of GOETHE with special attention to *Lyrical Poems* (ed. Schütze), *Werther*, *Torquato Tasso*, *Dichtung und Wahrheit* (ed. von Jagemann), *Faust*, Part I. Supplementary reading. Three hours a week.

3c. Oral term work; composition. One hour a week.

3d. Political and social history of Germany from 1713 to 1815. One hour a week.

3e. Essays on prescribed topics.

3f. Reading of German texts; practice in business correspondence and conversation in German. Three hours a week.

4b. The development of German literature of the nineteenth century, with special attention to KLEIST, *Das Käthchen von Heilbronn*; GRILLPARZER, *Die Ahnfrau*; HEINE, *Zur Geschichte der Religion und Philosophie in Deutschland*, *Die romantische Schule*; HEBBEL, *Gyges und sein Ring*; KELLER, *Der Landvogt von Greifensee*; MANN, TH., *Buddenbrooks*; HAUPTMANN, *Festspiel*. Supplementary reading. Two hours a week.

4c. Oral term work; composition. One hour a week.

4d. Middle High German grammar; history of the German language; history of Middle High German literature; WRIGHT, *Middle High German Primer*. One hour a week.

4e. Political and social history of Germany from 1815 to the present. One hour a week.

4f. Reading of German texts; practice in business correspondence and conversation in German. Three hours a week.

4g. Essays on prescribed topics.

## FRENCH

### UNIVERSITY COLLEGE:

JOHN SQUAIR, B.A.	<i>Professor Emeritus.</i>
J. H. CAMERON, M.A.	<i>Professor.</i>
J. S. WILL, B.A., PH.D.	<i>Professor.</i>
ST. E. DE CHAMP, B. ÈS L., O.I.P.	<i>Associate Professor.</i>
F. C. A. JEANNERET, B.A.	<i>Associate Professor.</i>
M. MORAUD, L. ÈS L., AGRÉGÉ DE L'UNIVERSITÉ.	<i>Associate Professor.</i>
H. S. MCKELLAR, B.A.	<i>Assistant Professor.</i>
L. ALLEN, PH.D.	<i>Assistant Professor.</i>
J. G. ANDISON, A.M., PH.D.	<i>Lecturer.</i>
W. J. MCANDREW, M.A.	<i>Lecturer.</i>
L. A. BIBET.	<i>Instructor.</i>
A. E. TILBY.	<i>Instructor.</i>
MISS J. C. LAING, B.A.	<i>Instructor.</i>
MISS F. COLE, B.A.	<i>Assistant.</i>
MRS. E. PATTERSON.	<i>Assistant.</i>

### VICTORIA COLLEGE:

H. E. FORD, M.A., PH.D.	<i>Professor.</i>
VICTOR DE BEAUMONT, A.M.	<i>Associate Professor.</i>
MISS M. C. ROWELL, B.A.	<i>Lecturer.</i>
A. LACEY, M.A.	<i>Lecturer.</i>
L. A. BIBET.	<i>Instructor.</i>
H. LASSERRE, B. ÈS L., B. ÈS Sc., L. EN DR.	<i>Instructor.</i>

### TRINITY COLLEGE:

R. E. L. KITTREDGE, M.A.	<i>Professor.</i>
A. A. NORTON, B.A.	<i>Lecturer.</i>
L. A. BISSON, M.A.	<i>Lecturer.</i>
L. A. BIBET.	<i>Instructor.</i>
MISS L. C. SCOTT, M.A.	<i>Reader.</i>

### ST. MICHAEL'S COLLEGE:

REV. W. H. MURRAY, B.A.	<i>Associate Professor.</i>
M. AGNES, B.A.	<i>Lecturer.</i>
REV. E. L. RUSH, B.A.	<i>Instructor.</i>

NOTE.—In order to be a member of any class in French, a student must satisfy the instructor as to his ability to profit by the instruction given. Supplementary reading under the direction of the staff may be required of students in all years.

### PASS COURSES

1a. Grammar; dictation; translation from English into French; translation at sight from modern French. The following texts are prescribed: ALEXANDRE DUMAS, *Le Comte de Monte-Cristo* (ed. by Tarver); PROSPER MÉRIMÉE, *Quatre contes*; ERCKMANN-CHATRIAN, *Le Juif polonais*; OCTAVE FEUILLET, *Le Village*; ALPHONSE DAUDET, *Lettres de mon moulin*. Four hours a week.

1b. Grammar; dictation; translation from English into French; translation at sight from modern French. The reading of the following texts: *Contes de la France contemporaine* (ed. by Daniels); ALPHONSE DAUDET, *Lettres de mon moulin*; ERCKMANN-CHATRIAN, *Le Juif polonais*. Two hours a week.

1c. Study of prescribed texts and sight work of scientific nature. Two hours a week.

2a. Grammar; dictation; translation from English into French; translation at sight from modern French. The following texts are prescribed: PIERRE LOTI, *Pêcheur d'Islande*; *French Short Stories* (ed. Buffum); ANATOLE FRANCE, *Le Livre de mon ami*; ROSTAND, *La Princesse lointaine*; HERVIEU, *La Course du Flambeau*; Supplementary reading: LAVISSE, *Histoire de France (Cours moyen)*. Three hours a week.

2b. Study of prescribed texts and sight work of scientific nature. Two hours a week.

3a (1). Standards of the classical age and the main ideas of the eighteenth century, studied in French literature from Malherbe to the *philosophes*. ABRÿ, AUDIC ET CROUZET: *Histoire illustrée de la littérature française; French Prose of the XVIIth Century* (ed. Warren); CORNEILLE, *Le Cid*, MOLIÈRE, *Le Misanthrope*; RACINE, *Andromaque*; LA FONTAINE, *Fables*, VOLTAIRE's *Prose* (ed. Cohn and Woodward).

(2) Supplementary reading from the authors of the period, carried on under the direct supervision of the instructors, forms an essential part of this course.

(3) Composition; translation at sight from modern French. Three hours a week.

4a (1). Forces and movements in French literature since 1750. ABRÿ, AUDIC ET CROUZET: *Histoire illustrée de la littérature française; Pages choisies de J.-J. ROUSSEAU* (ed. Rocheblave); *French Lyrics of the XIXth Century* (ed. Henning); VICTOR HUGO, *Hernani*; BALZAC, *Gobseck*; ÉMILE AUGIER, *Les Effrontés*; RENÉ BAZIN, *Le Blé qui lève*.

(2) Supplementary reading from the authors of the period, carried on under the direct supervision of the instructors, forms an essential part of this course.

(3) Composition; translation at sight from modern French. Three hours a week.

#### COURSES FOR STUDENTS IN COMMERCE

1d. Study of the following texts: ALEXANDRE DUMAS, *Le Comte de Monte-Cristo* (ed. by Tarver); MÉRIMÉE, *Quatre contes*; ERCKMANN-CHATRIAN, *Le Juif polonais*; FEUILLET, *Le Village*; ALPHONSE DAUDET, *Lettres de mon moulin*. Two hours a week.

1e. Exercises in French grammar and composition. One hour a week.

1f. Practical work in oral French. One hour a week.

2c. Study of the following texts: *French Short Stories* (ed. Buffum); PIERRE LOTI, *Pêcheur d'Islande*; ANATOLE FRANCE, *Le Livre de mon ami*; EMILE MALAKIS, *Le Français du Commerce*. Two hours a week.

2d. Exercises in French grammar and composition. One hour a week.

2e. Practical work in oral French. One hour a week.

3b. Practical exercises in French conversation and commercial correspondence. Study of the following texts: E. JANAUD, *Commercial Correspondence*; *La France qui travaille* (ed. Jago); POOLE and BECKER, *Commercial French*. Two hours a week.

4b. Practical exercises in French Conversation, and Commercial Correspondence. Study of the following texts: POOLE and BECKER, *Commercial French II*; E. JANAUD, *Commercial Correspondence*; P. CLERGET, *Manuel d'Économie commerciale*.

#### HONOUR COURSES

In determining the standing of all candidates in Honour French, examiners will take into account the reports of the instructors in this subject.

Students taking the full Honour French course must make satisfactory progress in the oral use of the language. Opportunity for this work will be provided in each of the four years.

1g. Grammar; dictation; pronunciation; translation from English into French; translation at sight from modern French.

Survey of French literature with special reference to the mediæval period. The following texts are prescribed for critical study: ÉMILE AUGIER, *Le Gendre de Monsieur Poirier*; ANATOLE FRANCE, *Le Crime de Sylvestre Bonnard*; ALPHONSE DAUDET, *Lettres de mon moulin*; *Quelques contes des romanciers naturalistes* (ed. Dow and Skinner); *French Lyrics* (ed. Canfield). Four hours a week.



1k. French Phonetics.

1i. Outlines of Mediæval History.

2f. History of French literature from the middle of the sixteenth century to the end of the seventeenth century, illustrated by the reading of texts from which the following are prescribed for critical study: *French Verse of the XVIIth Century* (ed. Wright); BOSSUET, *Oraison funèbre de Louis de Bourbon*; LA BRUYÈRE, *Caractères (De la Cour)*; CORNEILLE, *Le Cid*; RACINE, *Bérénice, Athalie*; MOLIÈRE, *L'Avare, Le Misanthrope*; BOILEAU, *L'Art poétique*; LA FONTAINE, *Fables* (ed. Clément). Two hours a week.

2g. History of France in the sixteenth and seventeenth centuries.

2h. Simple narrative composition; translation from English into French; translation at sight. One hour a week.

3c. History of literature and ideas in France during the eighteenth century, illustrated by texts from which the following are prescribed for critical study: LESAGE, *Turcaret*; MARIVAUX, *Le Jeu de l'amour et du hasard*; MONTESQUIEU, *L'Esprit des lois* (Books I, II, III); VOLTAIRE, *Zaïre, Zadig, Micromégas, Prose* (ed. Cohn and Woodward, pp. 1-73, 118-162, 294-347); ROUSSEAU, *Pages choisies* (ed. Rocheblave); BEAUMARCHAIS, *Le Mariage de Figaro* or *Le Barbier de Séville*; ANDRÉ CHÉNIER, *L'Aveugle, La Jeune Tarentine, Le Jeu de Paume, La Jeune Captive*; CHATEAUBRIAND, *Atala*.

3d. The Classic ideal as represented in critical writings from the Pléiade to the beginnings of Romanticism. The following texts will be used: DU BELLAY, *Défense et illustration de la langue française*; BOILEAU, *Selections from the Satires, Epîtres, and the Art poétique*; VOLTAIRE, *Essai sur la poésie épique*; DIDEROT, *De la poésie dramatique*; ROUSSEAU, *Lettre à M. d'Alembert*; MM. DE STAËL, *De la littérature*.

3e. History of France in the eighteenth century.

3f. Composition; translation from English into French; translation at sight.

3g. Essays on prescribed topics.

4c. (1) History of French literature from 1815 to the present, and acquaintance with representative works of this period. (2) Critical study in the lyric poetry of the Romantic period (VICTOR HUGO and ALFRED DE VIGNY); in the realistic novel (HONORÉ DE BALZAC and GUSTAVE FLAUBERT) and in the modern drama (HENRY BECQUE and PAUL HERVIEU). (3) Readings from French-Canadian Poetry.

4d. History of France from the beginning of the nineteenth century to the present.

4e. Composition; translation from English into French; translation at sight from French authors of any period.

4f. Elementary course in Old French.

4g. Essays on prescribed topics.

ITALIAN AND SPANISH

M. A. BUCHANAN, B.A., PH.D.....	Professor.
[ E. SHAW, A.B., PH.D.....	Professor.
E. GOGGIO, M.A., PH.D.....	Assistant Professor.
G. C. PATTERSON, M.A.....	Assistant Professor.
[UAN CANO, A.M.....	Assistant Professor.
H. W. HILBORN, B.A.....	Lecturer.

ITALIAN

1a. Grammar; pronunciation and dictation; translation; oral exercises. Text-books: *L'Italia* (Wilkins and Marinoni). Four hours a week.

1b. Italian Phonetics. One hour a week (Michaelmas term).

1c. (For students who have matriculated in Italian.) The same as 2a.

2a. Grammar; dictation; translation; composition; oral exercises. Text-books: GRANDGENT, *Italian Grammar*; *Il Risorgimento* (ed. Van Horne). GIACOSA, *Tristi Amori* (Altrocchi and Woodbridge); GOLDONI, *Un curioso accidente* (ed. Ford). Three hours a week.

2b. (For students who have matriculated in Italian.) The same as 3a, 3b.

3a. Grammar; translation. Text-book: CARDUCCI, *Antologia* (ed. Mazzoni e Picciola). LEOPARDI (ed. Straccali). One hour a week.

3b. History of Italian literature: the later Renaissance. Text-books: CASTIGLIONE, *Il Cortegiano* (ed. Cian); CELLINI, *Vita* (ed. Bianchi); HAUVETTE, *Littérature italienne*. Two hours a week.

3c. Composition in Italian and oral exercises; lectures in Italian on the art, history, and literature of Italy. Supplementary reading: SYMONDS, *The Age of Despots*. Two hours a week.

3d. Essays on prescribed topics.

3e. (For students in Commerce.) Reading of prescribed texts; composition and oral practice; commercial correspondence. Text-books: HECKER, *Il Piccolo Italiano*; ORSI, *Italia Moderna*. Three hours a week.

3f. (For students in Commerce who have matriculated in Italian.) The same as 4d.

4a. History of Italian literature; the early Renaissance. Text-books: DANTE, *Divina Commedia* (ed. Grandgent); PETRARCH, *Rime* (ed. Carducci e Ferrari); HAUVETTE, *Littérature italienne*. Three hours a week.

4b. Composition and oral exercises; lectures in Italian on the art, history, and literature of Italy. Supplementary reading: VILLARI, *Mediaeval Italy*. Two hours a week.

4c. Essays on prescribed topics.

4d. (For students in Commerce.) Reading of prescribed texts; composition and oral practice; commercial correspondence. Text-books: PITMAN, *Mercantile Correspondence*; RICCI, *Commercial Italian Grammar*. Lectures on the history, geography, and economic development of Italy. Three hours a week.

## SPANISH

1a. Grammar; pronunciation and dictation; translation; oral exercises. Text-books: CRAWFORD, *First Book in Spanish*; HILLS, *Spanish Tales for Beginners* (For Honours); WILKINS, *Beginners' Spanish Reader* (For Pass). Four hours a week.

1b. Spanish Phonetics. One hour a week (Michaelmas term).

1c. Elementary Spanish for students in the Faculty of Applied Science.

1d. (For students who have matriculated in Spanish.) The same as 2a.

2a. Grammar; dictation; translation; composition; oral exercises. Text-books: PALACIO VALDÉS, *La Hermana San Sulpicio* (ed. Gill); COOL, *Spanish Composition*; ESPINOSA, *Composition*. Three hours a week.

2b. (For students who have matriculated in Spanish.) For pass the same as 3a; for honours VALERA, *Pepita Jiménez*; PÉREZ GALDÓS, *Doña Perfecta*. Composition in Spanish and oral exercises; lectures in Spanish. Supplementary reading: AZORÍN, *El Alma castellana*. Three hours a week.

3a. History of Spanish literature in the nineteenth century. Text-books: ESPRONCEDA, *El Estudiante de Salamanca* (ed. Northup); VALERA, *Pepita Jiménez* (ed. Lincoln); PÉREZ GALDÓS, *Doña Perfecta*; MARTÍNEZ SIERRA, *Un Sueño de una noche de agosto*; ECHEGARAY, *O Locura o santidad* (ed. Geddes); BENAVENTE, *La malquerida*; FITZMAURICE-KELLY, *Chapters on Spanish Literature*. Three hours a week.

3b. Composition in Spanish and oral exercises; lectures in Spanish on the art, history, and literature of Spain and Spanish America. Supplementary reading: AZORÍN, *El Alma castellana*. Two hours a week.

3c. Essays on prescribed topics.

3d. (For students who have matriculated in Spanish.) For honours the same as 4a, 4b; for pass the same as 4a.

3e. (For students in Commerce.) VALERA, *Pepita Jiménez*; PÉREZ GALDÓS, *Doña Perfecta*. Composition in Spanish and oral exercises; lectures in Spanish. Supplementary reading: MCHALE, *Commercial Spanish*; BLASCO IBÁÑEZ, *Vistas Sudamericanas*. Three hours a week.

3f. (For students in Commerce who have matriculated in Spanish.) The same as 4e.

4a. History of Spanish literature: the Golden Age. Text-books: CERVANTES, *Don Quijote*; *Lazarillo de Tormes* (ed. Cejador); LOPE DE VEGA, *Amar sin saber a quién*; CALDERÓN, *La Vida es Sueño*; *The Oxford Book of Spanish Verse*; FITZMAURICE-KELLY, *Chapters on Spanish Literature*. Three hours a week.

4b. Composition and oral exercises; lectures in Spanish on the art, history, and literature of Spain and Spanish America. Supplementary reading: AZORÍN, *Al Margen de los Clásicos*. Two hours a week.

4c. Essays on prescribed topics.

4d. (For students who have matriculated in Spanish.) Reading of prescribed texts; composition and oral practice; essays. Three hours a week.

4e. (For students in Commerce.) Reading of prescribed texts; composition and oral practice, based on mercantile topics; commercial correspondence. Text-books: M. ROMERA-NAVARRO, *Manual del Comercio*; CARLOS F. McHALE, *Commercial Spanish*. Lectures on the history, geography and economic development of Spanish America. Text-book: W. R. SHEPHERD, *Latin America*. Three hours a week.

4f. (For students in Commerce who have matriculated in Spanish.) Reading of prescribed texts; composition and oral practice; essays. Three hours a week.

### PHONETICS

Elementary physiological phonetics, with practical exercises in the sounds of the modern languages studied. One hour a week in the Second Year of the Modern Language Course.

### HISTORY

G. M. WRONG, M.A., LL.D.	<i>Professor.</i>
G. M. SMITH, M.A.	<i>Associate Professor.</i>
R. FLENLEY, M.A., B.LITT.	<i>Associate Professor.</i>
W. P. M. KENNEDY, M.A., LITT.D.	<i>Assistant Professor.</i>
H. H. WRONG, B.A., B.LITT.	<i>Assistant Professor.</i>
W. S. WALLACE, M.A.	<i>Special Lecturer.</i>
S. H. HOOKE, M.A., B.D.	<i>Special Lecturer.</i>
J. B. BREBNER, B.A.	<i>Lecturer.</i>
MISS M. G. REID, B.A., B.LITT.	<i>Lecturer.</i>
L. B. PEARSON, B.A.	<i>Lecturer.</i>

(NOTE:—No text-books are prescribed in History. Some of the more important books are listed after the description of each course for the guidance of students.)

### PASS COURSES

1a. The History of Canada: from the age of discovery to the present day. For the main subjects of study and list of books, see Honour Course 1c.

1b. The History of the United States: from the Revolution to the present day. For the main subjects of study and list of books, see Honour Course 1d.

2a. The Renaissance and the Reformation in Europe with an introductory survey of the Middle Ages. For the main subjects of study and list of books, see Honour Course 2d.

2b. British History, 1485-1689. For the main subjects of study and list of books, see Honour Course 2e.

3a. Europe, 1763-1815. For the main subjects of study and list of books, see Honour Course 3c.

3b. British History, 1689-1815. For the main subjects of study and list of books, see Honour Course 3d.

4a. The History of Europe, 1815-1914. For the main subjects of study and list of books, see Honour Course 4d.

4b. The History of Great Britain, 1815-1914: a general sketch of the political and social changes of the period with a special study of foreign policy. For list of books, see Honour Course 4e.

4c. The Institutions of the modern British Empire: a comparative study. The governments of Great Britain, Canada and the other Dominions, India and the Crown Colonies; the chief problems of the British Commonwealth; a comparison with methods of government in other countries. Books: LOWELL, *Government of England*; KEITH, *Dominion Home Rule*, and *Responsible Government in the Dominions*; FIGGIS, *The Irish Free State Constitution*; HORNE, *Political System of British India*.

#### HONOUR COURSES

1c. The History of Canada: the age of discovery; the French explorers and the fur trade; society and government in New France; the struggle for supremacy of France and Britain; early British rule in Canada; the Loyalist migration and the English-speaking settlements; rebellion leading to political union; the Federation of Canada; the expansion to the Pacific; growth toward nationhood. Books: FISKE, *The Discovery of America*; 2 volumes; the works of Francis Parkman; MUNRO, *The Crusaders of New France*; WRONG, *The Conquest of New France*; EGERTON, *Canada, 1763-1921*; LORD DURHAM's *Report* (ed. Lucas); KENNEDY, *The Constitution of Canada*, and *Documents of the Canadian Constitution*; and biographical study from the series, "The Chronicles of Canada", or "The Makers of Canada", especially Dorchester, Sydenham, Macdonald and Laurier.

1d. The History of the United States: the colonial period; the American Revolution; the framing of the federal constitution; territorial expansion; the Civil War; the United States as a great power.

Books: LECKY, *The American Revolution*; EGERTON, *The American Revolution*; FISKE, *The American Revolution*, 2 volumes; WRONG, *Washington and his Comrades in Arms* (Chronicles of America); OLIVER, *Alexander Hamilton*; CHARNWOOD, *Abraham Lincoln*; WOOD, *Captains in the Civil War* (Chronicles of America); RHODES, *History of the Civil War, 1861-1865*; PAXSON, *Recent History of the United States*. For students wishing to read extensively are recommended: SIR G. TREVELYAN's volumes on *The American Revolution*; and for the causes and effects of the Civil War, J. F. RHODES, *History of the United States, 1850-1898*.

2c. Mediaeval Europe: beginning with the Roman Empire of the 4th century and closing with the development of the monarchies of France and England in the 12th and 13th centuries. The disintegration of the Roman Empire; the barbarian migrations and settlements; Christianity and the rise of the Papacy; the origin and spread of Islam; the Holy Roman Empire and the Papacy; feudalism and the later barbarian invasions; monasticism; the friars; the crusades; the French monarchy; the unification of England; mediaeval trade and the rise of towns; mediaeval civilization.

Books: for outlines, ORTON, *Outlines of Mediaeval History*; THORNDIKE, *Mediaeval Europe*; BRYCE, *Holy Roman Empire*; *The Cambridge Mediaeval History*; BURY, *Later Roman Empire*; HODGKIN, *Italy and her Invaders*; COULTON, *A Mediaeval Garner*; MUNRO and SELLERY, *Mediaeval Civilization*; and biographies of principal figures.

2d. A short introductory course on the later Middle Ages followed by the Renaissance and the Reformation: from the invasion of Italy by Charles VIII to the Treaty of Westphalia; political aspects of the Renaissance in Italy—Milan, Venice, Florence, the Papal States, Naples; the art of the Renaissance; the Reformation in Germany; the Hapsburg dominions and the empire of Charles V; the rise and decline of the Spanish power; centralization and absolutism in France; the Hapsburg-Valois feud; the Counter-Reformation; the revolt of the Spanish Netherlands; the wars of religion in France; Sweden under the Vasa; the Thirty Years' War; France under Henry IV and Louis XIII; the rise and decline of the Turkish power; political theory from Machiavelli to Grotius.

Books: for the introductory course DAVIS, *Mediaeval Europe* and LODGE, *Close of the Middle Ages*; for the period 1494-1648, JOHNSON, *Europe in the 16th Century*; WAKEMAN, *The Ascendancy of France*; LINDSAY, *The Reformation*; BATIFOLL, *The Century of the Renaissance in France*; ARMSTRONG, *Charles V*. For reference, the *Cambridge Modern History*.

2e. British History, 1485-1689. The Tudor system of government; political and diplomatic beginnings of modern English history; the agrarian revolution of the 16th century; the English Reformation; exploration and colonization; relations with France and Spain; the Puritan Revolution, political and religious; the Stuart theory and practice; the Long Parliament and the Civil War; Cromwell and the Commonwealth; the Stuart Restoration; foreign and domestic policies of the last Stuarts; the Revolution of 1689; Ireland under the Tudors and Stuarts; political theories of the period.

Books: *Political History of England*, volume V (Fisher) and volume VI (Pollard); TREVELYAN, *England under the Stuarts*; *Cambridge Modern History*; SEELEY, *Growth of British Policy*; CARLYLE, *Letters and Speeches of Oliver Cromwell* (ed. Firth).

2f. The Constitutional History of England to 1603. Original documents will be used, more especially for the period after 1485. The origins, Anglo-Saxon institutions and Norman feudalism; the 11th and 12th centuries, administrative and judicial centralization, local government, relations of Church and State, the feudal contract; the evolution of Parliament; the legislation of Edward I; the Lancastrian Experiment and the collapse of mediaeval institutions; Tudor government—the Privy Council, the conciliar courts, relations of Crown and Parliament, the ecclesiastical settlement.

Books: ADAMS and STEPHENS, *Select Documents of English Constitutional History*; STUBBS, *Select Charters*; TANNER, *Tudor Constitutional Documents*; the Constitutional Histories of Maitland and Adams; PROTHERO, introduction to *Statutes and Constitutional Documents*; MCILWAIN, *High Court of Parliament*; BALDWIN, *King's Council*.

2g. A general survey of British and European History, 1815-1914. For list of topics see 4d and 4e below.

Books: TREVELYAN, *British History in the 19th Century*; MUIR, *Short History of the British Commonwealth*, vol. ii; FYFFE, *History of Modern Europe*; GOOCH, *Modern Europe, 1878-1919*; HAZEN, *Europe since 1815*; LIPSON, *Europe in the Nineteenth Century*.

2h. Selected texts in Modern History: a course of study based on selections from the works of leading French or German historians as a preparation for the independent study of History in one of these languages.

Texts for 1924-5: either MICHELET, *Histoire de France*, vol. IX (*La Renaissance*) or BURCKHARDT, *Cultur der Renaissance in Italien*.

3c. Europe, 1763-1815. Political and social conditions in Europe, and especially in France, before 1789; the French philosophers; the failure of enlightened despotism. The beginning of the Revolution in France; the appeal to force; the reforms of the Constituent Assembly; the outbreak of war, the second revolution, and the fall of the throne; the Convention, the Jacobin government, and the Reign of Terror. The failure of the middle-class reaction 1794-99. The advent of Napoleon; the reorganization of France under the Consulate; the path to Empire and the conquest of Europe; Napoleonic statesmanship in Germany and Italy; the Continental System; the war of Liberation and the fall of Napoleon.

Books: LECKY, *England in the Eighteenth Century* (chapters on France); TOCQUEVILLE, *France before the Revolution*; YOUNG, *Travels in France*; SOREL, *L'Europe et la Révolution Française*, vol. i; ACTON, *Lectures on the French Revolution*; MADELIN, *French Revolution*; AULARD, *French Revolution*; BARTHOUS and WILLERT, *Mirabeau*; MADELIN, *Danton*; VANDAL, *L'Avènement de Bonaparte*; lives of Napoleon by Fournier, Rose, and Fisher; FISHER, *Bonapartism*, and *Napoleonic Statesmanship in Germany*.

3d. British History, 1689-1815. The relations of England, Scotland and Ireland; the evolution of Cabinet government and of the Whig and Tory parties, with special reference to the work of Walpole, Chatham and the younger Pitt therein; British foreign and colonial policy; the long struggle with France, especially in the field of colonial enterprise; the loss of the American Colonies; society before and during the Industrial Revolution; the Methodist movement; the effects of the French Revolution on English life and thought.

Books: for outlines, MUIR, *Short History of the British Commonwealth*; FLETCHER, *Introductory History of England*, vol. iii; TREVELYAN, *England under the Stuarts*; ROBERTSON, *England under the Hanoverians*; MACAULAY, *History of England and Essays*; LECKY, *England in the Eighteenth Century*; MORLEY, *Walpole and Burke*; WILLIAMS, *Chatham*; HOLLAND ROSE and ROSEBURY, *Pitt*; TREVELYAN, *Early Life of C. J. Fox*.

3e. The Constitutional History of England since 1603: a course based on the following books of documents: PROTHERO, *Constitutional Documents, 1558-1625*; GARDINER, *Documents of the Puritan Revolution, 1625-1660*; GRANT ROBERTSON, *Select Cases, Statutes, Documents, 1660-1832*. The development of the modern Constitution; the struggle for the "rule of law" and the sovereignty of Parliament in the 17th century, with the constitutional experiments of the Cromwellian interregnum; the unions with Scotland and Ireland; the rise of parties and the cabinet system; reform in central and local government in the 19th century; the advent of political democracy; the working of modern British institutions.

Books: the Constitutional Histories of Maitland and Adams; McILWAIN, *High Court of Parliament*; DICEY, *Law of the Constitution*; LOWELL, *Government of England*; HOLDSWORTH, *History of English Law*, vol. i; ERSKINE MAY, *Constitutional History*; ANSON, *Law and Custom of the Constitution*.

3f. Political Theory (Ancient): a course based on Aristotle's *Politics*, Plato's *Republic*, and Maine's *Ancient Law*. The *Politics* will be used as a basis for discussion of the following topics: the Greek city state; the nature and end of the state; political rights; the sphere of law; the state and property; the state and education; the Greek conception of democracy.

3g. A special subject studied with reference to original authorities. A list of subjects is printed below.

4d. The History of Europe, 1815-1914: a study of the national movements of the 19th century and their effect upon international relations. Special attention will be paid to: the settlement of Vienna and the Congress period; the revolutions of 1848; the age of Napoleon III and the foundation of the Third French Republic; the work of Cavour in Italy and of Bismarck in Germany; the growth of German imperialism and the resultant diplomatic upheaval; the modern history of the Near Eastern—15



and Balkan problems; and the condition of European civilization on the eve of the Great War.

Books: for outlines, A. PHILLIPS, *Modern Europe*, LIPSON, *Europe in the Nineteenth Century*; SEIGNOBOS, *Political History of Contemporary Europe*, and FYFFE, *History of Modern Europe*, vols. ii and iii, continued by GOOCH, *Modern Europe, 1878-1919*, are on a larger scale; *Cambridge Modern History*, vols. X-XII; MOWAT, *History of European Diplomacy*; for France, BOURGEOIS, *Modern France*; for Italy, BOLTON KING, *History of Italian Unity*, and STILLMAN, *Union of Italy*; for Germany, ROBERTSON, *Bismarck*, and DAWSON, *German Empire*. An historical atlas is essential for the study of the period.

4e. The History of Great Britain, 1815-1914. The Industrial Revolution and the social history of industrialized England; reform in central and local government; the Benthamite philosophy; Free Trade; the Manchester School; Liberalism; the working class movements, e.g., Chartism and the later Socialism; Trade Unionism; the advent of democracy and its influence on policy and institutions; the history of political parties; the development of British "Imperial" opinion; the Irish question; domestic politics under Gladstone, Disraeli, Salisbury; foreign policy from Castlereagh to Sir Edward Grey.

Books: TREVELYAN, *British History in the Nineteenth Century*; MUIR, *Short History of the British Commonwealth*, vol. ii; EGERTON, *History of British Foreign Policy*; *Cambridge History of British Foreign Policy*; DICEY, *Law and Opinion in England*. Biographies: PHILLIPS, *Canning*; WALLAS, *Francis Place*; TREVELYAN, *Grey of the Reform Bill*, and *Bright*; MONYPENNY and BUCKLE, *Disraeli*; MORLEY, *Gladstone*; CECIL, *Salisbury*; STRACHEY, *Queen Victoria*.

4f. The Constitutional History of Canada from 1759 to the present day: the period of military government and constitutional investigation; the Quebec Act; the new factor—the English-speaking settlers; the Constitutional Act; the struggle for self-government; rebellion, Durham, the Act of Union; parliamentary government; federation; the interpretation and working of the British North America Act; recent developments.

Books: KENNEDY, *Constitution of Canada*, and *Documents of Canadian Constitution*; SHORTT and DOUGHTY, *Canadian Constitutional Documents*; DOUGHTY and MCARTHUR, *Canadian Constitutional Documents*; KEITH, *War Government in the Dominions*; LEFROY, *Canadian Constitutional Law*.

4g. The Institutions of the Modern British Empire: an advanced course on the subjects outlined in 4c.

4h. Political Theory (Modern): a course on the development of modern political thought, based on the study of selections from HOBBS, *Leviathan*, ROUSSEAU, *Social Contract*, J. S. MILL, *Essay on Liberty*, and T. H. GREEN, *Principles of Political Obligation*.

4i. A Special Subject (continued from the Third Year).

## SPECIAL SUBJECTS

See 3g and 4i. The following subjects, of which one shall be chosen, are offered for 1924-25:

(1) The Revolutions of 1848. A study of the movements of 1848-9 in France and Germany, to be based as much as possible on original sources, such as: Documents in Postgate, *Revolution*, and ANDERSON, *Constitutions and Documents, France*; for France, L. BLANC, *L'Organisation du Travail*; histories of the revolution by L. Blanc and Lamartine; TOCQUEVILLE, *Recollections*; STERN, *Histoire de la révolution de 1848*; NORMANBY, *A Year in France*; for Germany, KLEIN, *1848 Der Vorkampf*; LEGGE, *Rhyme and Revolution in Germany*; SCHURZ, *Reminiscences*, vol. i; METTERNICH, *Mémoires*; LAUBE, *Das Erste Deutsche Parlament, 1848-49*; MARX, *Revolution and Reaction in Germany and Austria*.

(2) Representative Government. The working of representative government in Great Britain, the United States, France, and Switzerland; the principles of the new constitution of India; the theory of representative government; special problems of modern democracy, such as electoral systems, direct government, the influence of political parties, parliamentary procedure, and the form of second chambers. The course will be based on the study of constitutional documents and parliamentary papers.

(3) Lord Durham's Report on the Affairs of British North America. A study in imperial politics based upon original authorities. *Lord Durham's Report* (ed. Lucas); KENNEDY, *Documents of the Canadian Constitution*; EGERTON AND GRANT, *Canadian Constitutional Development*; *Lady Durham's Journal*; STUART REID, *Life and Letters of the first Earl of Durham*; FAWCETT, *Life of Molesworth*; MOLESWORTH, *Selected Speeches*; GARNET, *Life of Wakefield*; WAKEFIELD, *The Art of Colonization*; *The Creevey Papers*; CHISHOLM, *Speeches and Public Letters of Joseph Howe*; C. W. ROBINSON, *Life of J. B. Robinson*; J. B. ROBINSON, *Canada and the Canada Bill*.

(4) The American Revolution. A course based on the following original authorities: MORISON, *The American Revolution, Sources and Documents*; ALLEN JOHNSON, *Readings in American Constitutional History*; TYLER, *Literary History of the American Revolution* (2 vols.); WRAXALL, *Historical Memoirs of our own Times*; RAYMOND (Editor), *The Winslow Papers*; CURWEN, *Journals and Letters 1775-1784*; BURKE, *Speeches on America*.

(5) The Distribution of Legislative Power in the Federations of the British Empire. A course based on the study of the constitutions in A. P. NEWTON, *Federal Constitutions*; of the cases reported in the federal, provincial and state courts, and in the Judicial Committee of the Privy Council; and LEFROY, *Canada's Federal System, and Legislative Power in Canada*; CLEMENT, *Law of the Canadian Constitution* (3rd ed. 1916); MOORE, *The Commonwealth of Australia*; QUICK, *Legislative Powers in Australia*.

## (6) England at the close of the Middle Ages.

A study of town and country life in fifteenth century England, based as far as possible on contemporary sources including: *The Chronicles of London* (ed. Kingsford); *The Historical Collections of a London Citizen* (ed. Gairdner); *The Records of the Borough of Leicester* (ed. Bateson); *The Cely Papers* (ed. Malden); *The Paston Letters* (ed. Gairdner); *The Plumpton Correspondence* (ed. Stapleton); and *The Stonor Letters and Papers* (ed. Kingsford).

## POLITICAL ECONOMY

JAMES MAVOR, PH.D.....	Professor Emeritus.
R. M. MACIVER, M.A., D.PHIL.....	Professor.
C. R. FAY, M.A., D.Sc.....	Professor of Economic History.
W. JACKMAN, M.A.....	Associate Professor of Rural Economics.
G. E. JACKSON, B.A.....	Associate Professor.
H. A. INNIS, M.A., PH.D.....	Lecturer.
H. R. KEMP, M.A.....	Lecturer.
V. W. BLADEN, B.A.....	Lecturer.
S. P. DOBBS, B.A.....	Lecturer.
W. P. M. KENNEDY, M.A., LITT.D.	
	<i>Special Lecturer in Mediaeval Economics.</i>
W. S. FERGUSON.....	Lecturer in Accounting.

1a. Economic Geography. The course attempts in a general outline to estimate the significance of geographic conditions (geological formations, physical features, climate) as factors in the development of modern civilization. Consideration will be given to the inter-relationship between these conditions and the movements of population, the state of the industrial arts, and the concomitant institutional fabric. With this background attention will be paid to the direction, extent and character of modern movements. Books recommended: NEWBIGIN, *Modern Geography*; HUNTINGTON AND WILLIAMS, *Business Geography*; HUNTINGTON AND CUSHING, *Principles of Human Geography*; COLBY, *Readings in Economic Geography of North America*; SMITH, J. R., *Industrial and Commercial Geography*. Two hours a week.

1b. Social Science. This course forms an introduction to Social Evolution. The following topics are included: (1) Primitive society: types and stages of culture. (2) The extension of man's power over the forces and materials of nature. (3) The development of tools and machinery: division and organization of labour. (4) The organization of knowledge; the development of institutions; historical outline of education, law, government. Books recommended: MARETT, *Anthropology*; LOWIE, *Primitive Society*; GOLDENWEISER, *Ancient Civilization*; MÜLLER-LYER, *History of Social Development*; LEWINSKI, *Origin of Property*; MACIVER, *Community*.

1c. Economic Geography. The course deals with the significance of geographic characteristics in the development of modern civilization. Books recommended: HUNTINGTON AND CUSHING, *Principles of Human Geography*; HUNTINGTON AND WILLIAMS, *Business Geography*; NEWBIGIN, *Modern Geography*.

2a. Principles of Economics. The following books will be found useful: TAUSSIG, *Principles of Economics*; PIERSON, *Principles of Economics*; MARSHALL, *Principles of Economics*; MILL, *Principles of Political Economy*; ADAM SMITH, *Wealth of Nations*; WICKSTEED, *Common Sense of Political Economy*; CASSEL, *Nature and Necessity of Interest*; SMART, *Distribution of Income*; CARVER, *Distribution of Wealth*; HENDERSON, *Supply and Demand*; HOBSON, *Evolution of Modern Capitalism*; LAYTON, *Introduction to the Study of Prices*. Three hours a week.

2b. Economic History. British Economic History from the middle ages to the present day, with special reference to the period from 1760 onwards; and the Economic History of the United States. Books recommended: ASHLEY, *Economic Organization of England*; REES, *Fiscal and Financial History of England, 1815-1918*; KNOWLES, *Industrial and Commercial Revolutions in Great Britain during the 19th Century*; FAY, *Life and Labour in the 19th Century*; BUXTON, *Finance and Politics*; PRÖTHERO, *English Farming Past and Present*; JACKMAN, *Transportation in Modern England*; ANDREADES, *History of the Bank of England*; DICEY, *Law and Opinion in England*; WEBB, *History of Trade Unionism*; BLAND, BROWN AND TAWNEY, *English Economic History, Select Documents*; ADAM SMITH, *Wealth of Nations* (Book IV); CALLENDER, *Economic History of the United States*; LIPPINCOTT, *Economic Development of the United States*; BOGART AND THOMPSON, *Readings in the Economic History of the United States*; RABBENO, *American Commercial Policy*. Three hours a week.

2c. Structure of Modern Industry and Commerce. (1) Distribution of population and natural resources. Localization of industry. (2) Survey of the economic field (production, distribution, transport and exchange). Relation between industry and commerce. (3) Characteristics of modern industry. Economies of large-scale organization. Limiting factors in agriculture. (4) Markets and marketing. Producers' co-operation. (5) Competition and combination. The trust movement. Public ownership. Consumers' co-operation. Books recommended: TAUSSIG, *Principles of Economics*; MARSHALL, *Industry and Trade*; LEVY, *Monopoly and Competition*; FAY, *Co-operation at Home and Abroad*. Three hours a week.

2d. Economic History and Theory with special reference to the eighteenth and nineteenth centuries. Books recommended for study: CLAY, *Economics for the General Reader*; GIBBINS, *Industry in England*; TOYNBEE, *Industrial Revolution*; WEBB, *History of Trade Unionism in England*; HOBSON, *Evolution of Modern Capitalism*; ADAM SMITH, *Wealth of Nations*;

BLAND, BROWN AND TAWNEY, *English Economic History, Select Documents*; DICKENS, *Hard Times*; DISRAELI, *Sybil*. One hour a week.

2e. General Introduction to the Study of Economics. For pass students. Elements of Economic Theory, Sketch of Economic History, and of important social changes and movements. GIDE, *Political Economy*. Two hours a week.

3a. Labour Problems. The evolution of trade union organizations, types and methods. The problems of industrial relationship and the various schemes put forward for the attainment of industrial harmony or peace. Wages and other forms of payment in relation to productivity. Books recommended: WEBB, *History of Trade Unionism*, and *Industrial Democracy*; COMMONS, *History of Labour in the U.S.*, and *Principles of Labour Legislation*; COLE, *The World of Labour*, and *Introduction to Trade Unionism*; HOXIE, *Trade Unionism in the U.S.*; *Bulletins of the U.S. Bureau of Labour Statistics*, *Bulletins of the International Labour Office*, *Board of Trade Labour Gazette* (England), *The Labour Gazette* (Canada). One hour a week.

3b. Money, Credit and Prices. Changes in general prices: the gold standard: function of the bank: inflation of currency and credit; effects on the industrial system; and on the distribution of income; the trade cycle: proposals for currency reform: the foreign exchanges: external borrowing in peace and war; settlement of international indebtedness; payment of war indemnities. Books recommended: TODD, *The Mechanism of Exchange*; MARSHALL, *Money, Credit and Commerce*; KEMMERER, *Money and Prices*; FISHER, *The Purchasing Power of Money*; and *Stabilizing the Dollar*; DE LAUNAY, *The World's Gold*; LEHFELDT, *Gold and the Watersrand*; WITHERS, *The Meaning of Money*; PALGRAVE, *Bank Rate and the Money Market*; LAVINGTON, *The English Capital Market*; and *The Trade Cycle*; CONANT, *Modern Banks of Issue*; CASSEL, *The World's Monetary Problems*; and *Money and Foreign Exchange after 1914*; KEYNES, *Economic Consequences of the Peace*; and *Monetary Reform*; HAWTREY, *Monetary Reconstruction*; BRECKINRIDGE, *A History of Canadian Banking*; ROSS, *A History of the Canadian Bank of Commerce*; JOHNSON, *The Canadian Banking System*; WHITE, *The Story of Canada's War Finance*; Royal Bank of Canada, *Financing Foreign Trade*; *The Bank Act*; *Report of the House of Commons Committee on Banking and Commerce* (1923). Three hours a week.

3c. Statistics. General introduction to the use of statistics: methods of collection, tabulation, graphic presentation, analysis, and application to various types of economic problems. Survey of some of the most useful sources of statistical information. A considerable part of the course is devoted to laboratory work, under supervision, in which statistical methods are applied to the study of current questions. Text-books and works of reference: SECRIST, *Manual of Statistical Methods*; KING, *Elements of Statistical Method*; BOWLEY, *Introductory Manual of Statistics*, and *Elements*

of Statistics; MEITZEN, *History, Theory and Technique of Statistics* (supp. vol. to Annals of American Academy of Political and Social Science, Philadelphia, 1891); W. C. MITCHELL, *Index Numbers of Wholesale Prices in the United States and Foreign Countries* (Bulletin 284 of U.S. Bureau of Labour Statistics, 1921); FISHER, *Making of Index Numbers*; BLOCK, *Traité Theorique et Pratique de Statistique*; GEORG VON MAYR, *Statistik und Gesellschaftslehre*; *Census Reports of Canada, Great Britain, and U.S.A.*; *Canada Year Book*; *Statesman's Year Book*; *Publications of Royal Statistical Society*; *Publications of American Statistical Association*; *Labour Gazette* (Ottawa); and other publications to be indicated from time to time. Three hours a week.

3d. Public Finance and Administration. Principles and incidence of taxation; national and local finance; public debts and their redemption; the public domain; revenue systems of modern states; methods of central and local administration. Books recommended: SELIGMAN, *The Incidence of Taxation*; SELIGMAN, *Progressive Taxation* (American Econ. Assn., 1909); BASTABLE, *Public Finance*; LEROY BEAULIEU, *Science des Finances*, Livre 11, Chaps. 4, 5, 9, 10; PLEHN, *Public Finance*; COHN, *The Science of Finance*; SELIGMAN, *Essays on Taxation*; J. W. GRICE, *National and Local Finance*; SELIGMAN, *The Income Tax*; KENNAN, *Income Taxation*; PLEHN, *The Property Tax in California*; MAVOR, *Taxation of Banks in Canada, Taxation of Corporations in Canada* (State and Local Taxation Conference (1908)); LOWELL, *The Government of England*; REDLICH AND HURST, *Local Government in England*; VINEBERG, *Dominion and Provincial Taxation in Canada*; VILLARD AND WILLOUGHBY, *Canadian Budgetary System*. Three hours a week.

3e. Economic Theory. For pass students. Books recommended: ADAM SMITH, *Wealth of Nations*; MALTHUS, *On Population*; RICARDO, *Political Economy*; MARX AND ENGELS, *The Communist Manifesto*; GIDE AND RIST, *History of Economic Doctrines*; DAVENPORT, *Value and Distribution*; LEVINSKY, *The Founders of Political Economy*; SPARGO, *Socialism*. Three hours a week.

3f. Economic Theory. An introductory course for Honour students in Philosophy. Two hours a week.

4a. Advanced Economic Theory. A course dealing with the evolution of economic thought through the principal schools from the Physiocrats to the present, and giving special attention to the criticism of current theories of value, interest, rent, and wages. Books recommended: ADAM SMITH, *Wealth of Nations*; MALTHUS, *Essay on Population*; RICARDO, *Principles of Political Economy*; J. S. MILL, *Principles of Political Economy*; MARX, *Capital*; BÖHM-BAWERK, *Capital and Interest*, and *The Positive Theory of Capital*; MARSHALL, *Principles of Economics*, and *Industry and Trade*; CANNAN, *Theories of Production and Distribution*; HOBSON, *Economics of Distribution*; J. B. CLARK, *Distribution of Wealth*; DALTON, *Inequalities of*

*Income*; HANEY, *History of Economic Thought*; GIDE AND RIST, *History of Economic Doctrines*. Three hours a week.

4b. Transportation. Railway accounts and rates; principles of rate making as established by the railways, the regulative tribunals and the courts; railway policy in Canada and the other chief countries; railway rate structures; organization of ocean commerce; ocean freight-rates; shipping conferences and their results; relations of ocean and land transportation interests. Books recommended: BROWN, *Transportation Rates and their Regulation*; JOHNSON AND VAN METRE, *Principles of Railroad Transportation*; ACWORTH, *Elements of Railway Economics*; KNOOP, *Outlines of Railway Economics*; JOHNSON AND HUEBNER, *Principles of Ocean Transportation*; MACGIBBON, *Railway Rates and the Canadian Railway Commission*. Two hours a week.

4c. Corporation Finance. Economic services of corporations; capitalization; detailed study of stocks and bonds; financing of extensions and improvements; management of incomes and reserves; dividend policy; insolvency; receiverships; reorganizations. Books recommended: HARTLEY WITHERS, *Stocks and Shares*; MEAD, *Corporation Finance*; GREENE, *Corporation Finance*; CONYNGTON, *Financing an Enterprise*; LOUGH, *Business Finance*; DAGGETT, *Railroad Reorganizations*; DEWING, *Corporate Promotions and Reorganizations*; GERSTENBERG, *Materials of Corporation Finance*. Two hours a week.

4d. Economic History of Canada and the United States. The course is an attempt to estimate the significance of economic factors in the growth of western civilization on the North American continent. Three hours a week.

4e. Political Theory. A study of the nature, functions, institutions, and limits of the modern state, led up to by a critical review of political thought from Machiavelli and Grotius to the present day. Books recommended: HOBBS, *Leviathan*; LOCKE, *On Civil Government*; ROUSSEAU, *Social Contract*; SIDGWICK, *Elements of Politics*; RITCHIE, *Principles of State Interference*; SEELEY, *Introduction to Political Science*; MACKENZIE, *Introduction to Social Philosophy*; BARKER, *Political Thought of Plato and Aristotle*, and *Political Thought from Spencer to the Present Day*; LASKI, *Studies in the Problems of Sovereignty, and Authority in the Modern State*; DUGUIT, *The Law and the State*; BRYCE, *Modern Democracies*. Two hours a week.

4f. Rural Economics. A study of rural interests from the standpoint of economic principles; the economy of land, labour and capital in agriculture; the problems of ownership and tenancy; rural credits; transportation in its vital relation to agriculture; the problems of marketing farm products; principles underlying the proper adjustment of rural and urban industries; rural social economy. Books recommended: Publications of the International Institute of Agriculture; reports of government and

educational institutions dealing with important phases and problems of agriculture in Canada, England and United States; NOURSE, *Agricultural Economics*; FAY, *Cooperation at Home and Abroad*; DUNCAN, *Marketing, its Problems and Methods*; CHERINGTON, *The Elements of Marketing*; HERRICK, *Rural Credits*; WALLACE, *Agricultural Prices*; *Proceedings of the American Country Life Conference*. Two hours a week.

4g. Business Administration. Special lectures by experts on aspects and methods of business administration. The subjects will be arranged under the following heads: (1) financial control, (2) home and export marketing, (3) personnel administration. One hour a week.

4h. A General Sketch of Economic History. For pass students. Books recommended: ASHLEY, *Economic Organization of England*; KNOWLES, *Industrial and Commercial Revolutions in Great Britain during the 19th Century*; FAY, *Life and Labour in the 19th Century*; BOGART, *Economic History of the United States*. Three hours a week.

4i. Special Subject:—

The special subject for the year 1924-25 is the study of the fur trade on the North American continent and its effects on civilization. Attention will be given to the causes, extent, and character of its development. Special consideration will be given to technical demands of the trade, the organization and marketing peculiar to the various stages of its history. Further, an attempt will be made to estimate the effects of the trade on the development of economic institutions. The course will be conducted in such a way as to require independent work on the part of each student as a contribution to suggested problems.

## LAW

T. H. BLACK, M.A., B.Sc., LL.B. .... *Professor of Roman Law and Jurisprudence.*

A. R. CLUTE, B.A., LL.B. .... *Lecturer in Law.*

H. W. A. FOSTER, LL.B. .... *Lecturer in Law.*

W. P. M. KENNEDY, M.A., LL.D. *Special Lecturer on Federal Institutions.*

3a. History of English Law. Anglo-Saxon Customs and Doms. The Norman century: feudal tenures and Church Courts. Foundation of the Common Law: writs and jury-trial. Legislation of Edward I. Expansion of the Common Law: entails; contracts and torts. Equity. Development by legislation and decisions. Struggle between Chancery and Common Law Courts in the reign of James I. Reform by Equity. Legislation and Common Law before the Reform Bill period. Rigidity of the Equity system. Progress by legislation in England and Ontario. For reference: MAITLAND AND MONTAGUE, *A Skeich of English Legal History*; POLLOCK AND MAITLAND, *History of English Law* (Book I); STORRY DEANS, *Student's Legal History*; JENKS, *Short History of English Law*. One hour a week.



3b. Roman Law. 1. History: The early legal system and procedure by *legis actiones*. The Twelve Tables statute. Republican law: development by *jus civile* of the juriconsults and by the praetor's edict; procedure by *formula*. The Principate: equity, *jus gentium* or *jus naturale*; development of rigidity in the law. Absolute Monarchy: codification by imperial legislation; Justinian's system. 2. Elements of Private Law: law of persons, family, and slaves. Law of inheritance, legacies and trust-bequests. Law of property. *Obligations*: contract and delict. Text-books: SOHM, *Institutes of Roman Law* (Ledlie's translation); SANDARS or MOYLE, *Justinian's Institutes*. For general reading and reference: GAIUS, *Institutes*; GIRARD, *Manuel*, or ROBY, *Roman Private Law*; chapter 44 of GIBBON, *Decline and Fall*; and the Article on "Roman Law" in last edition of *Encyclopædia Britannica*, or MUIRHEAD, *Historical Introduction to the Private Law of Rome*. Two hours a week.

3c. A course in English Constitutional Law, in which the distinctive features of the English Constitution, the Rule of Law and the Sovereignty of Parliament, the two Houses of Parliament, the Cabinet and the relation to the Crown and Parliament, the prerogative, the conventions, the Courts, and the position of the subject under English law, are the principal topics. Students are recommended to read: DICEY, *Law of the Constitution*; ANSON, *Law and Custom of the Constitution*; THOMAS, *Leading Constitutional Cases*; LOW, *Governance of England*; MARRIOTT, *English Political Institutions*; RIDGE, *Constitutional Law*. One hour a week, Michaelmas term.

3d. A course in Colonial Constitutional Law, in which the lectures deal with the various forms of colonial government with special reference to the self-governing colonies and to current problems. Students are recommended to read: TODD, *Parliamentary Government in the Colonies* (to page 318); "Introduction" to DICEY, *Law of the Constitution* (8th ed., 1915), pp. xiv to xxxvii; c. 2, pp. 98-116; and either TARRING, *Law in Relation to the Colonies*; JENKYNs, *British Rule and Jurisdiction beyond the Seas*; or the Section on Colonies and Dependencies in HALSBURY, *Laws of England*. One hour a week, Easter term.

4a. A course in Canadian Constitutional Law, with special reference to the distribution of legislative and executive powers between the Dominion and the Provinces. Text-books: CLEMENT, *Law of the Canadian Constitution* (3rd ed., 1916), Part II; LEFROY, *Short Treatise on Canadian Constitutional Law*. For reference: LEFROY, *Legislative Power in Canada*; LEFROY, *Leading Cases*, and Reported Cases to which the student may be referred by lecturer.

4b. A course in Federal Institutions. The lectures deal with the essential features of federal government in a comparative view of the leading federal States. Special attention is given to the constitutions of Canada, Australia, South Africa, the United States, and Switzerland. Books recommended for reading: KENNEDY, *Law and Development of the Canadian Constitution*; BRYCE, *American Commonwealth* (last edition); WILSON, *Congressional*

*Government*; TAFT, *Our Chief Magistrate*; HAINES, *The American Doctrine of Judicial Supremacy*; BALDWIN, *The American Judiciary*; MOORE, *The Commonwealth of Australia* (second edition); QUICK, *Legislative Power in Australia*; VINCENT, *The Government of Switzerland*; BROOKS, *The Government and Politics of Switzerland*; HIGHT AND BAMFORD, *The Constitutional History and Law of New Zealand*. One hour a week.

4c. Jurisprudence. Scope of the science; definition and analysis of *law* and of *rights*; solution of disputes by inflexible rules or by juridical determination. Classification of legal rights and the departments of law. Sources of law and the juridical development of law. Jurisprudence of legal personality; family; succession; trusts; property; contract; delict or tort; evidence and procedure; public rights. Application of the methods of Jurisprudence to International Law. Text-books: HOLLAND, *Elements of Jurisprudence*; MAINE, *Ancient Law*, with Pollock's notes. For general reading and reference: SALMOND, *Jurisprudence*; MAINE, Lectures XII, XIII, in *Early History of Institutions*; POLLOCK, *First Book of Jurisprudence*; and BRYCE, *Lectures on History and Jurisprudence*. Two hours a week.

4d. International Law: 1. The nature, history and sources of international law. 2. The subjects of international law: the notion of sovereignty and the classification of states; the origin, continuity and extinction of states; the independence of states, self-preservation and intervention; the equality of states, the system of Europe and the Monroe Doctrine. 3. The objects of international law: territorial sovereignty and state territory; modes of acquiring territory; territorial, boundary and international waters; the open sea; jurisdiction; nationality and alienage. 4. International intercourse; international agents; treaties; negotiation, mediation and arbitration; forcible measures short of war. 5. War: general notions; immediate legal effect; enemy character of persons; rule of non-intercourse; laws of war with regard to enemy persons; enemy character of property and laws of war with regard to property; military occupation; enemy merchantmen, their crews and cargoes; prize courts; instruments and methods of naval warfare; non-hostile intercourse of belligerents. 6. Neutrality: nature and history; violation and cessation; neutralization; the obligations of a neutral state; the duties of prevention, abstention and impartiality; the rights of a neutral state; inviolability of territory, right of asylum, right of commerce; nationals of neutral state subject to state law and to rights of belligerent states; visit and search; contraband of war; blockade; unneutral service. 7. For reference: (1) general treatises: HALL, WESTLAKE, LAWRENCE, OPPENHEIM; (2) cases and documents: MOORE, COBBETT, SCOTT, WHITTUCK, LAWRENCE, EVANS; (3) prize court decisions, official documents relating to the late war and Covenant of the League of Nations. One hour a week.

4e. Commercial Law: General principles of the law of contracts. Rules relating to parties to contract; agency, partnership and companies. General

view of the following: sale of goods, negotiable instruments, powers of banks, relation of banker and customer, insurance, carriage of goods, suretyship and guarantee, bills of sale and chattel mortgages, bankruptcy and insolvency. Text-book: STEVENS, *Elements of Mercantile Law* (6 ed., 1920, by H. Jacobs). A larger book of a general character is SMITH, *Mercantile Law*. The lecturer will, if desired, refer students to special works on any of the foregoing topics. One hour a week.

4f. Commercial Law: A second course, an extension of Course 8.

## PHILOSOPHY

### UNIVERSITY OF TORONTO:

J. G. HUME, A.M., PH.D. .... *Professor of History of Philosophy.*  
 G. S. BRETT, M.A. .... *Professor.*  
 T. R. ROBINSON, PH.D. .... *Associate Professor.*  
 J. W. COHEN, M.A. .... *Assistant in Logic.*

### UNIVERSITY COLLEGE:

F. TRACY, B.A., PH.D. .... *Professor of Ethics.*

### VICTORIA COLLEGE:

W. B. LANE, M.A., PH.D. .... *Professor of Ethics.*  
 W. T. BROWN, M.A., PH.D. .... *Associate Professor of Ethics.*

### TRINITY COLLEGE:

REV. G. F. KINGSTON, M.A., B.D., PH.D.,  
*Associate Professor of Ethics.*

### ST. MICHAEL'S COLLEGE:

REV. D. CUSHING, LL.D. .... *Professor Emeritus.*  
 REV. H. CARR, B.A., LL.D. .... *Professor of History of Philosophy.*  
 SIR BERTRAM C. A. WINDLE, M.A., PH.D., M.D., Sc.D., LL.D.,  
 F.R.S. .... *Professor of Anthropology.*  
 REV. E. J. MCCORKELL, M.A. .... *Professor of Social Ethics.*  
 REV. H. S. BELLISLE, M.A. .... *Professor of Logic.*  
 M. DEWULF, PH.D., LL.D. .... *Professor of Mediaeval Philosophy.*  
 REV. A. E. HURLEY, S.T.L. .... *Professor of Theodicy.*  
 REV. F. D. MEADER, B.A. .... *Professor of Ethics.*  
 REV. B. SULLIVAN, M.A. .... *Lecturer in Social Ethics.*

## PASS COURSES

2a. An Introductory Course in Philosophy. (i) General problems of philosophy and principles of logic. Two hours a week. (ii) Introduction to Ethics. One hour a week.

3a. Social Ethics. (1) Theory of morals. The subject matter and methods of ethics; study of the chief factors in the ethical problem;

critical examination of typical solutions. (2) History of moral ideas and customs in early society, with especial reference to Greek ethics, including (a) the moral and political ideals of Plato and Aristotle; (b) the later Greek systems (Stoic and Epicurean) and their influence on world civilization; (c) comparison of Greek and early Christian ideals and influences. (3) The study of modern social conditions and problems in their ethical aspects. Prescribed texts: SETH, *Ethical Principles*; Selections from PLATO, *Republic*; ARISTOTLE, *Nicomachean Ethics* and *Politics*; and from Stoic and Epicurean writers, as contained in BAKEWELL, *Source Book in Ancient Philosophy*. References: DEWEY AND TUFTS, *Ethics*; DRAKE, *Problems of Conduct*; SIDGWICK, *History of Ethics*; ROGERS, *Short History of Ethics*; ELWOOD, *Sociology and Modern Social Problems*; TOWNE, *Social Problems*. Three hours a week.

3b. History of Philosophy. History of the Problems of Ancient and Mediæval Philosophy. Texts: PLATO, *Republic*; ARISTOTLE, *Ethics*; works of reference as prescribed in the course of instruction. Three hours a week.

4a. Modern Ethics. The lectures will be (a) Historical, tracing the rise and development of the leading problems of ethics, and the formation of the chief schools and systems, Hedonist, Intuitionist, etc.; (b) Expository and critical. The following texts will be studied in the class, and their doctrines examined: HOBBS, *Leviathan*; HUME, *Enquiry concerning the Principles of Morals*, with Appendices; J. S. MILL, *Utilitarianism*; SPENCER, *Data of Ethics*; J. G. HUME, *Young's Ethics of Freedom*; GREEN, *Prolegomena to Ethics*. Three hours a week.

4b. History of Philosophy. History of the problems of Modern Philosophy with special reference to British Philosophy. References: SETH, *English Philosophers and Philosophical Schools*; CALKINS, *The Persistent Problems of Philosophy*; CUSEMAN, *History of Philosophy*, Vol. II; RAND, *Classical Philosophers*; A. D. LINDSAY, *Kant*; M. M. WADDINGTON, *The Development of British Thought*. Three hours a week.

#### HONOUR COURSES

1a. Ethics. Introductory Course. Studies in character, conduct and moral values. Prescribed text: JOHNSON, *An Introduction to Ethics*. Two hours a week.

2b. Ethics. Elementary Course. Outline study of the subject matter and method of Ethics, with its leading problems and schools. Ethical development among the Hebrews, Greeks and Romans. Prescribed texts: MACKENZIE, *Manual of Ethics*; Selections from the Old Testament; PLATO, *Republic*; ARISTOTLE, *Nicomachean Ethics*; CICERO, *De Finibus*, and from other Greek and Roman writers, as given in BAKEWELL, *Source Book in Ancient Philosophy*. References: ROGERS, *Short History of*

*ethics*, MUIRHEAD, *Elements of Ethics*, SETH, *Ethical Principles*, DEWEY AND TUFTS, *Ethics*, WATSON, *Hedonistic Theories*, SMITH, *The Moral Life of the Hebrew People* Two hours a week

2c Logic Introductory Course Development of Logic among the Greeks Texts PLATO, *Theaetetus*, *Republic*, ARISTOTLE, *Organon* (Selections), CREIGHTON, *Introductory Logic* One hour a week

2d History of Philosophy Texts LOCKE, *Essay on the Human Understanding* BERKELEY, *Principles of Knowledge* Two hours a week

3c Ethics English Ethics from Hobbes to Spencer, with special attention to the Ethics of Naturalism Exposition and criticism of Hedonism, Utilitarianism, and Evolutionism, in relation to the general trend of English thought and life in the period covered Prescribed texts HOBBS, *Leviathan*, HUME, *Enquiry concerning the Principles of Morals*, MILL, *Utilitarianism*, SPENCER, *Data of Ethics*, together with other selections, from RAND, *Classical Moralists*, or SELBY-BIGGE, *British moralists* References ALBEE, *History of English Utilitarianism*, WATSON, *Hedonistic Theories*, SORLEY, *The Ethics of Naturalism*, MARTINEAU, *Types of Ethical Theory*, RASHDALL, *Theory of Good and Evil* Two hours a week

3d History of Philosophy Modern Philosophy (a) The rationalistic school, selections from Des-Cartes, Spinoza, Leibnitz (b) The empirical school, selections from Hume, Mill, Spencer, James Two hours a week

3e Logic (a) Development of Logic from Aristotle to Bacon (b) Empirical Logic and Scientific Methods Texts BACON, *Novum Organum* and *Advancement of Learning*, J S MILL, *A System of Logic*, HOBHOUSE, *Theory of Knowledge* Two hours a week

4c Ethics Rationalism and Idealism Exposition and criticism of the Ethics of Kant and T H Green Discussion of selected problems in Ethics Prescribed texts KANT, *Groundwork of the Metaphysic of Ethics*, and *Critique of Practical Reason*, GREEN, *Prolegomena to Ethics* References CAIRD, *The Critical Philosophy of Kant*, WATSON, *The Philosophy of Kant Explained* Two hours a week

4d Social Ethics (1) The evolution of society, philosophy of social progress, its nature and the forces directing it (2) Theories of the mutual relation of the state and the individual, grounds of political obligation (3) Modern social conditions and problems References GREEN, *Principles of Political Obligation*, TODD, *Theories of Social Progress*, PARK AND BURGESS, *Introduction to the Science of Sociology*, ELWOOD, *Sociology and Modern Social Problems*, OGG, *Social Progress in Contemporary Europe* Two hours a week

4e History of Philosophy Kant and his successors Text KANT, *Critique of Pure Reason* Two hours a week

4f Logic The development of modern logic One hour a week

4g Review of current movements with special reference to methods and principles Two hours a week

5 Selected texts Students who elect this option will be required to study one or more selected texts approved by the Department The work is done under the direction of the staff, but formal instruction is not necessarily provided

## ST MICHAEL'S COLLEGE

### PASS COURSES

2e Logic The standpoint and problem of Logic, important stages in the development of Logic, the syllogism, the problem of induction, assumptions of induction, the laws of thought, types of judgment, nature of inference, science and philosophy, philosophy as the interpretation of the sciences

3f (1) General Philosophy Modern physical and chemical views in relation to the conception of matter and form, the uniformity of the Universe and the orderliness of Nature, proofs of the existence of God, the argument from design Two hours a week

3f (2) Psychology An introductory course A study of common human experiences presenting the main problems of Psychology, various fields of consciousness and methods of study normal, human, adult psychology Prescribed texts MAHER, *Psychology*, Part I, Manuals by BREESE, DUBRAY and MERCIER

3g (1) An introduction to Social Philosophy Natural Law, Rights and Duties The Family The State

3g (2) An introduction to Psychology Its application to the Study of Social Problems

3h General Ethics An analysis of the idea of the Good with a criticism of the various theories, the problem of Duty, the Virtues, Natural Law, Rights Prescribed texts CRONIN, *Science of Ethics*, Vol I, MACDONALD, *Principles of Morality*, RICKABY, *Moral Philosophy* Three hours a week

4g (1) General Philosophy The cell and cellular life, Bio- and Abiogenesis, development, vegetable and animal kingdoms, vitalism, Geology and early man, races of mankind, transformism, the origin of man Two hours a week

4g (2) Metaphysics The nature and need of Metaphysics, the notion of Being, essence and existence, unity, truth, and goodness of Being, the possibilities of Being, the finite and infinite in Being, substance and accident, personality, causality, relation, space, and time Two hours a week

4g (3) Psychology A study of the nature of the human mind, the mind-body relation, psychical research Texts MAHER, *Psychology*, Part II, BARRET, *Psychical Research*, MCDOUGALL, *Mind and Body* Two hours a week

4h Same as 3g

4i Social Ethics A course of lectures on Social Reconstruction Theory of Social Reform—Socialism and Labour Movement as types of reform activity Readings RYAN, *Social Reconstruction*, RYAN AND HUSSEIN, *The Church and Labour*, RYAN AND MILLER, *The Church and State*, MCLEAN, *The Moralty of the Strike*

### HONOUR COURSES

1b Genetic Psychology Growth and Development Methods of Learning Experience Education Two hours a week

2f Introduction to Philosophy Prescribed texts M DE WULF, *History of Medieval Philosophy*, PLATO, *Republic*, ARISTOTLE, *Politics*, CICERO, *De Finitibus*, Encyclopedia articles Three hours a week during the Michaelmas term

2g An outline of Greek philosophic thought Three hours a week during the Easter term

2h Logic The standpoint and problem of Logic, important stages in the development of Logic, the syllogism, the problem of induction, assumptions of induction, the laws of thought, types of judgment, nature of inference, science and philosophy, philosophy as the interpretation of the sciences Prescribed texts BOSANQUET, *Essentials of Logic*, JOYCE, *Principles of Logic*, COFFEY, *Science of Logic*, BUTCHER, *Aspects of Greek Genius*, *Essay on the unity of Learning*

2i Seminar in Logic Special problems arising from the reading of NEWMAN's *Grammar of Assent*, ARISTOTLE's *Organon* One hour a week

2j Psychology An introductory course A study of common human experiences presenting the main problems of Psychology, various fields of consciousness and methods of study, normal, human, adult psychology Prescribed texts MAHER, *Psychology*, Part I, Manuals by BREESE, DUBRAY and MERCIER Two hours a week

2k Social Psychology Behaviour and action, theories of action. Reference W MCDOUGALL, *Social Psychology* One hour a week.

2l General Ethics An analysis of the idea of the Good, with a criticism of the various theories, the problem of Duty, the Virtues, the Natural Law, Rights Prescribed texts CRONIN, *Science of Ethics*, Vol I, McDONALD, *Principles of Morality*, RICKABY, *Aquinas Ethics*, ROSS, *Christian Ethics* Two hours a week

3a General Philosophy Modern chemical and physical views in relation to the conception of Matter and Form, the uniformity of the Universe and the orderliness of Nature, proofs of the existence of God, the argument from design Two hours a week

3j Logic The problems of Epistemology, scepticism, positivism, dogmatism, exposition and criticism of each, knowledge and the external world, critical study of DESCARTES, LOCKE, HUME, BERKELEY, KANT from this viewpoint, the criteria of valid knowledge One hour a week

3k Seminar in Logic Discussion of the problems arising from the reading of BERKELEY, *Principles of Knowledge*, *Essay on the Human Understanding* One hour a week

3l Metaphysics The nature and need of Metaphysics, the notion of Being, essence and existence, unity, truth, and goodness of Being, the possibilities of Being, the finite and infinite in Being, substance and accident, personality, causality, relation, space and time Two hours a week

3m Industrial Ethics A course of lectures on the problems of distributive justice, natural justice and private property, rent, interest, profits, wages, the guild system, the morality of the strike, the Church and Labour, the Church and the State, the Social Mission of Charity Readings CARLYLE, *Mediaeval Political Theory in the West*, CARVER, *The Distribution of Wealth*, J A RYAN, *Distributive Justice*, HENRY GEORGE, *Progress and Poverty*, HILQUIT-RYAN, *Socialism—Promise or Menace?*, RYAN, *The Living Wage*, PENTY, *A Guildsman's Interpretation of History*, BELLOC, *The Servile State*

3n Seminar in Social Ethics Selected readings from PLATO, ARISTOTLE and ST THOMAS

3o History of Mediaeval Philosophy Two hours a week

4j General Philosophy The cell and cellular life, Bio- and Abiogenesis, development, vegetable and animal kingdoms, vitalism, Geology and early man, races of mankind, transformism, the origin of man Two hours a week

4k Epistemology An investigation of the grounds of Certitude with special reference to HUME, KANT and J S MILL One hour a week during the Michaelmas term

4l Contemporary Thought Bergson, Croce, and British and American realists One hour a week during the Easter term

4m Psychology A study of the nature of the human mind, the mind-body relation, psychical research Prescribed texts MAHER, *Psychology* Part II, Readings BARRETT, *Psychical Research*, MCDUGALL, *Mind and Body* Two hours a week

4n Seminar in Psychology The History of Psychology References MERCIER, *The Origin of Modern Psychology*, BRETT, *History of Psychology*



4o Social Ethics A study of the social thought of the nineteenth century as reflected in the writings of MILL, BENTHAM, CARLYLE, NEWMAN, RUSKIN, HUXLEY, SPENCER, and T H GREEN

4p History of Modern Philosophy Two hours a week

4q Theodicy Theories about a Supreme Being, his existence demonstrable, knowledge attainable by reason concerning God and His attributes Text SANSEVERINO AND ZIGLIARA, *Theologia Naturalis*, Topical Studies ST THOMAS, *I Contra Gentiles*, GARRIGOU-LAGRANGE, *Dieu son existence et sa nature*, WARD, *Philosophy of Theism* Two hours a week

4r A dissertation on some selected topic in Philosophy to be chosen by the student and approved by the department on or before November 1

#### PSYCHOLOGY DEPARTMENT

1 Abnormal Psychology Problem of the feeble-minded, school-life, adult life, intelligence tests as applied to children and their results, feeble-minded and their relation to society, relation of Psychiatry to Psychology, drugs and their effect, heredity as a factor in insanity, general outline of diseases of the mind, treatment of mental diseases in general, results, duty of the state as a factor, cause of the increase of mental diseases

#### PSYCHOLOGY

##### UNIVERSITY OF TORONTO

J W BRIDGES, A M , P H D

*Associate Professor*

E A BOTT, B A *Associate Professor and Director of Psychological Laboratory*

MISS K M BANHAM, B Sc , M A

*Lecturer*

S N F CHANT, B A

*Class Assistant*

##### ST MICHAEL'S COLLEGE

REV W J ROACH, B A

*Professor*

V A. McDONOUGH, M B

*Lecturer*

#### PASS COURSES

2a Elementary Psychology A course in fundamentals, lectures and demonstrations exercises (2f) Three hours a week

2b A survey of the field of psychology for students of the Extension Department Special reference to problems of applied psychology Two hours a week

2c Introductory Course Two hours a week

3a Principles and application of experimental psychology, lectures and laboratory (3f) Three hours a week

4a Abnormal Psychology, abnormal mental phenomena and their relation to the normal, the psychology of mental disease and the psychopathology of everyday life, lectures and demonstrations Three hours a week

#### HONOUR COURSES

2d Introduction to psychology, laboratory courses (2f, 2h) Three hours a week

3b Methods of psychological analysis, historical and critical Three hours a week

3c Analysis and measurement of processes, lectures with laboratory (3g) Three hours a week

4b Abnormal Psychology, abnormal mental phenomena and their relation to the normal, the psychology of mental disease and the psychopathology of everyday life, lectures, special readings and reports Three hours a week

4c The psychology of intelligence, character and temperament, theories, method of evaluation, lectures with laboratory (4d) Three hours a week

#### COURSES IN THE FACULTY OF MEDICINE

3d Special psychology (Six year course) Fifteen hours

NOTE—The courses for students taking the Psychiatric Option are 2c, 3e, 4a, and 4e

#### COURSES IN THE DEPARTMENT OF SOCIAL SERVICE

1a General Psychology One hour a week

2e Social and applied psychology Two hours a week

#### LABORATORY COURSES

2f Statistical exercises

2g Elementary experiments on sensation Two hours a week

2h Experimental technique

3e Practical laboratory course Two hours a week

3f General experimental course Two hours a week

3g Higher processes and psychological measurements. Two hours a week

4d Clinical psychology Two hours a week

4e Selected laboratory problems for advanced students

## MATHEMATICS

ALFRED BAKER, M A , LL D	<i>Professor Emeritus</i>
A T DeLURY, M A	<i>Professor</i>
M A MACKENZIE, M A	<i>Professor</i>
J C FIELDS, B A , PH D , F R S	<i>Professor</i>
S BEATTY, PH D	<i>Associate Professor</i>
I R POUNDER, M A	<i>Assistant Professor</i>
J L SYNGE, M A	<i>Assistant Professor</i>
D A F ROBINSON, M A	<i>Substitute Lecturer</i>
A F C STEVENSON, B A	<i>Lecturer</i>
MISS M E G WADDELL, M A	<i>Instructor</i>
R G ARCHIBALD, B A	<i>Fellow</i>
MISS C I LISTER, B A	<i>Fellow</i>
MISS G M P TAYLOR, B A	<i>„ Fellow</i>

## PASS COURSES

1a Algebra Simple equations of one, two and three unknown quantities, quadratic equations of one and two unknown quantities, elementary treatment of variation, proportion and progressions, interest forms and annuities Text-book DeLURY, *Intermediate Algebra* One hour a week

1b Analytical Geometry A course in elementary analytical geometry of two dimensions, establishing the more important properties of the conic sections Text-book BAKER, *Analytical Geometry for Beginners* One hour a week

1c Plane Trigonometry Trigonometrical ratios with their relations to one another sines, etc., of the sum and difference of angles, with deduced formulas, solution of triangles, expressions for the area of triangles, radii of circumscribed, inscribed and escribed circles Text-book HALL AND KNIGHT, *Elementary Trigonometry* One hour a week

1d Algebra and Analytical Geometry A review of permutations and combinations and a study of limits and series A study of the conic sections and a treatment of tangents in general Three hours a week

2a Algebra A course in limits and infinite series, serving as an introduction to the calculus One hour and a half a week

2b Analytical Geometry A review and extension of the earlier course in two dimensions, with special attention to the graphs of functions, and an elementary course in three dimensions treating of the plane, the line, the sphere and the conicoids One hour and a half a week

3a Differential and Integral Calculus The elementary theory and applications Three hours a week

3b History of Mathematics The earlier period One half hour a week

3c Differential and Integral Calculus An extension of course 2c designed to enable students to apply the Calculus to problems arising in Economics Three hours a week

4a Calculus and Differential Equations A continuation of the course in the Third Year, with an elementary course in differential equations One hour a week

4b Geometry A course in the modern methods of treating pure geometry Two hours a week

4c History of Mathematics The later period One half hour a week

4m Mathematics of Statistics Three hours a week

### HONOUR COURSES

1e Algebra Limits, infinite series with a special study of the binomial, exponential and logarithmic series, continued fractions, elementary number-theorems and determinants Text-books HALL AND KNIGHT, *Higher Algebra*, C SMITH, *Treatise on Algebra*, CRYSTAL, *Algebra* Two hours a week

1f Introduction to Analysis Two hours a week

1g Analytical Geometry An advanced course Text-book C SMITH, *Conic Sections* Two hours a week

1h Spherical Trigonometry Text-book TODHUNTER AND LEATHAM, *Spherical Trigonometry* One half hour a week

1i Analytical Trigonometry De Moivre's Theorem and a study of the more important trigonometrical infinite series and infinite products Text-books TODHUNTER AND HOGG, *Plane Trigonometry*, HOBSON, *Trigonometry* One half hour a week

1j Elementary Analysis Limits, binomial, exponential and logarithmic series, applications to problems in economics Two hours a week

2c Differential and Integral Calculus The elementary theory and applications Text-book OSGOOD, *Differential and Integral Calculus* Two hours a week

2d Differential Calculus An advanced course Text-books WILLIAMSON, *Differential Calculus*, SERRET, *Differential-und Integral-Rechnung*, DE LA VALLÉE POUSSIN, *Cours d'Analyse Infinitésimale* Two hours a week.

2e Integral Calculus An advanced course Text-books WILLIAMSON, *Integral Calculus*, SERRET, *Differential-und Integral-Rechnung*, DE LA VALLÉE POUSSIN, *Cours d'Analyse Infinitésimale* Two hours a week

2f Solid Geometry An advanced course Text-books BELL, *Co-ordinate Geometry of three Dimensions*, C SMITH, *Solid Geometry* Two hours a week

2g Exercises on courses 2d, 2e and 2f preceding Three hours a week

3c Differential Equations Standard forms of first order and simple forms of higher order, linear equations with constant coefficients and general linear equations of second order Text-books COHEN, *Differential Equations*, CAMPBELL, *Differential Equations* One hour a week

3d. Theory of Equations An elementary course including applications to number-theory and geometry Text-books DICKSON, *Elementary Theory of Equations*, BURNSIDE AND PANTON, *Theory of Equations* One hour a week

3e Differential Geometry Space curves, envelopes and ruled surfaces, curvature of surfaces, lines on surfaces Text-books BELL, *Co-ordinate Geometry of three Dimensions*, GOURSAT-HEDRICK, *Mathematical Analysis*, Vol I Two hours a week

3f Theory of Functions of a Real Variable The real number system, limits, sets, functions, continuity, aspects of uniformity, differentiation, integration, representations of functions Text-books GOURSAT-HEDRICK, *Mathematical Analysis*, Vol I, PIERPONT, *Theory of Functions of a Real Variable* Three hours a week

3g Modern Pure Geometry Geometry treated from the non-metrical standpoint based on properties of alignment Text-books DURELL, *Plane Geometry for Advanced Students*, VEBLEN AND YOUNG, *Projective Geometry*, Vol I Two hours a week

4d Differential Equations The advanced course Text-books JOHNSON, *Differential Equations*, FORSYTH, *Differential Equations* Two hours a week

4e Higher Plane Curves With introductory course in Modern Geometry Text-books SALMON, *Higher Plane Curves*; CLEBSCH, *Vorlesungen über Geometrie* Two hours a week

4f Quaternions With outlines of other Space Analyses Text-books KELLAND AND TAIT, *Quaternions*, JOLY, *Manual of Quaternions*, TAIT, *Quaternions* Two hours a week

4g Invariant Theory Text-books SALMON, *Higher Algebra*, ELLIOTT, *Algebra of Quantics*, GORDAN, *Invariantentheorie*, GRACE AND YOUNG, *Algebra of Invariants* Two hours a week

4h Elementary Theory of Functions Text-books HARKNESS AND MORLEY, *Introduction to Analytic Functions*, FORSYTH, *Theory of Functions* Two hours a week

4i Modern Synthetic Geometry Text-books REYE, *Geometry of Position* (translated by Holgate), CREMONA, *Projective Geometry*, LACHLAN, *Modern Pure Geometry*, DURELL, *Plane Geometry for Advanced Students*, VEBLEN AND YOUNG, *Projective Geometry* Two hours a week

4j Advanced Calculus Implicit functions, definite integrals, multiple integration, etc Text-book GOURSAT-HEDRICK, *Mathematical Analysis*, Vol I Two hours a week

4k Theory of Probability Text-book Article on "Probability" in the eleventh edition of the Encyclopædia Britannica One hour a week

4l Theory of Substitution Groups with applications to Algebraic Equations Text-books NETTO, *Theory of Substitutions* (Translation by Cole), WEBER, *Lehrbuch der Algebra*, DICKSON, *Introduction to the Theory of Algebraic Equations*

Course 4k is an alternative course for Course 9, Actuarial Science, offered for those students of the Fourth Year who have not taken Actuarial Science in the earlier years

#### COURSES IN THE FACULTIES OF ARTS AND MEDICINE

1k Elementary Analysis A course in limits and infinite series, with a special study of the Binomial, Exponential and Logarithmic Series One hour a week

1l Elementary Analytical Geometry One hour a week

2k Differential and Integral Calculus An elementary course with special attention to applications Two hours a week

3k Finite Differences Methods and use of formulae Elementary Mathematical statistics Two hours a week

#### COURSES IN THE FACULTY OF APPLIED SCIENCE

1m Algebra and Elementary Calculus Limits, binomial, exponential and logarithmic series, and the elementary theory of the differential and integral calculus, with simple applications Two hours a week

1n Analytical Geometry An elementary course emphasizing the general method in this subject One hour and a half a week

2n Differential and Integral Calculus An elementary course with applications One hour a week

#### MECHANICS

W J LOUDON, B A

*Professor*

N E SHEPPARD, M A

*Lecturer*

1a Elementary Mechanics Two hours a week during Michaelmas term

2a Elementary Statics and Dynamics Two hours a week during the Easter term

2b Principles of Mechanics One hour and a half a week

3a Elementary Mechanics A course of lectures for Third Year Pass Course One hour and a half a week

3b Advanced Statics Three hours a week during Easter term

- 3c Particle Dynamics Two hours a week during Michaelmas term  
 4a Rigid Dynamics Two hours a week  
 4b Celestial Mechanics Two hours a week  
 4c Method of Least Squares One hour a week during the Easter term.

## COURSE IN THE FACULTY OF APPLIED SCIENCE

- 5 Dynamics of Rotation One hour a week

## ACTUARIAL SCIENCE

M A MACKENZIE, M A

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*Professor*

1a Arithmetic Decimals, interest and discount, annuities certain, bond values, etc One hour a week

1b Accounting An introductory course in general principles One hour a week

2a Elementary Mathematics of Statistics One hour a week

2b Accounting, advanced A critical examination of the Theory and Practice of Accounting and the preparation of financial statements Two hours a week

2c The Elements of the Theory of Life Annuities and Life Assurances One hour a week

2d Finite Differences Elementary methods and formulæ. One hour a week

3a The Theory of Life Contingencies An advanced course, Part I Two hours a week

4a The Theory of Life Contingencies An advanced course, Part II Two hours a week

## ASTRONOMY

C A CHANT, M A, PH D

*Professor of Astrophysics.*

J. H. HORNING, M A

*Demonstrator*

W E W JACKSON, M A

*Demonstrator*

H F BALMER, B A

*Demonstrator*

G M BRYCE

*Class Assistant*

A W ENTWISTLE

*Class Assistant*

## PASS COURSE

1 Introduction to Astronomy A course of lectures describing the various astronomical phenomena Opportunity for evening observations will also be given Text-book YOUNG, *Elements of Astronomy* One hour a week

## PASS AND HONOUR COURSES

2 Elementary Astronomy A course intended for students in the Pass and Science courses. Text-book YOUNG, *Manual of Astronomy* Two hours a week

3 Elementary Practical Astronomy Intended to accompany 2 Consisting of observation (including photography), of the heavenly bodies, together with exercises in simple astronomical measurements and in the use of almanacs, globes, star-maps, photographs, etc Text-book WHITING, *Exercises in Astronomy* Two hours a week, in afternoon or evening as arranged

3a Elementary Astronomy A course dealing chiefly with the celestial sphere and the motions of the heavenly bodies Text-book YOUNG, *Manual of Astronomy* Two hours of lectures and two hours of practical work a week

4a Elementary Astrophysics A course dealing with the physical constitution of the heavenly bodies and including the evolution of the stars and of the solar system Text-books YOUNG, *Manual of Astronomy*, NEWALL, *The Spectroscope* Two hours of lectures and two hours of practical work a week

## HONOUR COURSES

4 Astronomy A more advanced course Text-books ANDOVER, *Cours d'Astronomie*, tome 1, *The Nautical Almanac* For reference BALL, *Spherical Astronomy*, CHAUVENET, *Spherical Astronomy* Two hours a week

5 Practical Astronomy Observations with the equatorial telescope, the transit instrument and the sextant By courtesy of the director of the Meteorological Observatory the astronomical instruments there are used by the students of the University Text-book CAMPBELL, *Practical Astronomy* Two evenings a week

6 Computation Course A course for the discussion of astronomical observations and for computation, associated with Course 5 Two hours a week

7 Introduction to Astrophysics Text-books SCHEINER, *Astronomical Spectroscopy*, BALY, *Spectroscopy*, SALET, *Spectroscopie Astronomique* Two hours a week

8 Practical Astrophysics A laboratory course to accompany Course 7 One afternoon a week in the Michaelmas and two in the Easter term



## PHYSICS

J C McLENNAN, O B E, P H D, D S c, L L D, F R S

*Professor and Director of the Physical Laboratory*

E F BURTON, B A, P H D

*Associate Professor*

JOHN SATTERLY, M A, D S c.

*Associate Professor*

LACHLAN GILCHRIST, M A, P H D

*Assistant Professor*

H A McTAGGART, P H D

*Assistant Professor*

J F T YOUNG, P H D

*Demonstrator*

C BARNES, M S c

*Demonstrator*

MISS R CARNAHAN, B A

*Demonstrator*

MISS K M CROSSLEY, B A

*Demonstrator*

J E CURRIE, B A

*Demonstrator*

H J C IRETON, M A

*Demonstrator*

MISS F M QUINLAN, M A

*Demonstrator*

A G SHENSTONE, B S, M A, P H D

*Demonstrator*

A C LEWIS, M A

*Assistant Demonstrator*

MISS A T REED, B A

*Class Assistant*

The work of instruction in Physics consists of a series of courses of lectures and of practical work in the laboratories, which are embodied in the following schedule

1 A course of seventy-five lectures on Properties of Matter, Mechanics, Hydrostatics and Heat These lectures are illustrated by experiments Text-books EGGAR, *Mechanics*, WAGSTAFF, *Properties of Matter*, STEWART, AND SATTERLY, *Text-book of Heat*

2 Properties of Matter, Mechanics, Hydrostatics and Heat A laboratory course of seventy-five hours, one afternoon a week, throughout the year, designed to illustrate the lectures in Course 1 Text-books As for Course 1, also ALLEN AND MOORE, *Text-book of Practical Physics*, Parts I and IV CLARK, *Mathematical and Physical Tables*

3 Elementary Magnetism and Electricity A course of thirty-five lectures, given in two divisions 3a and 3b Text-books HADLEY, *Magnetism and Electricity for Students*, SYLVANUS THOMPSON, *Electricity and Magnetism*, BROOKS AND POYSER, *Electricity and Magnetism*, WATSON, *A Text-book of Physics*, STEWART, *Electricity and Magnetism*, HUTCHINSON, *Advanced Magnetism and Electricity*

4 Elementary Light A course of twenty-five lectures, one a week beginning in the Michaelmas term Text-books STEWART AND SATTERLY, *Text-book of Light*, EDSEER, *Light for Students*, WATSON, *A Text-book of Physics*

5 Elementary Acoustics A course of fifteen lectures, one a week Text-books CATCHPOOL, *Text-book of Sound*, POYNTING AND THOMSON, *Sound*, WATSON, *A Text-book of Physics*, D C MILLER, *The Science of Musical Sounds*

The lectures in Courses 1, 3a, 3b, 4 and 5 are illustrated by experiments

6 Magnetism, Electricity, Light and Acoustics A laboratory course of one hundred and fifty hours, two afternoons a week throughout the year, designed to illustrate the lectures in Courses 3a, 3b, 4 and 5 Text-books: ALLEN and MOORE, *Text-book of Practical Physics*, CARHART and PATTERSON, *Electrical Measurements*, C M SMITH, *Electric and Magnetic Measurements*, EDSEER, *Light for Students*, CLAY, *Treatise on Practical Light*, CATCHPOOL, *Sound*

7 A course of lectures one hour a week on Elementary Light and Sound Text-books as for courses 4 and 5

8 A series of lectures, being a portion of the first year Pass Course, on the principles and application of Science Text-book BURTON, *Lectures in General Physics*

9 A course of lectures and laboratory work, four hours a week, for second year pass students This course includes Properties of Matter, Mechanics, Hydrostatics, and Heat The lectures will deal with simple measurements, energy, gravitation and the pendulum, the general properties of solids, liquids and gases such as elasticity, viscosity and capillarity, the determination of fluid pressures, specific gravity and the theory and use of common forms of pumps, barometers, etc, the thermal characteristics of various substances, including expansion, various thermometers, specific and latent heat and calorimetry, the phenomena observable during the change of state of substances from one form to another, conduction, radiation, heat and energy, the first and second laws of thermodynamics, engines, the liquefaction of gases and liquid air, the kinetic theory of matter Text-books as for courses 1 and 2

10 A course of lectures and laboratory work, four hours a week, for third year pass students This course includes work in light and acoustics, and consists of a general explanation of wave motion, the reflection, refraction, diffraction and interference phenomena connected with wave motion, the production, propagation, and detection of sound waves, tuning forks, organ pipes and vibrating strings, various musical scales, analysis of complex sounds, the ear and voice, a study of mirrors, prisms and lenses, the eye, microscope, telescope and other optical instruments, dispersion, colour and spectroscopy, interference and diffraction, double refraction and polarisation, theories of light Text-books as for Courses 4 and 5

11 A course of lectures and laboratory work, four hours a week, for fourth year pass students This course will consist of lectures and laboratory work in electricity and magnetism, including recent developments, such as radioactivity and radiology, laws of magnetism, static electricity, condensers, electrical conduction in solids, liquids and gases, voltaic cell, chemical, magnetic and heating effect of the electrical current, potential, Ohm's law and its application, laws of electrical resistance, electromotive forces, induced currents, the induction-coil, alternating and high frequency currents, electrical waves, X-rays and radioactivity Text-books as for Course 3

12 Applications of the theory of Potential to Physics A course of forty lectures Text-book STARLING, *Electricity and Magnetism*

13 Properties of Matter A course of lectures, two a week beginning in the Michaelmas term Text-books POYNTING AND THOMSON, *Properties of Matter*, EDSE, *General Physics*

14 Geometrical Optics A course of lectures, one a week Text-books GLEICHEN, *Theory of Modern Optical Instruments*, HEATH, *Geometrical Optics*, SOUTHALL, *Mirrors, Prisms, and Lenses*

15 Advanced Heat and Elementary Thermodynamics A course of lectures, one a week Text-books EDSE, *Heat for Advanced Students*, HART, *A Student's Heat*, PRESTON, *Heat*, E. H. GRIFFITHS, *Thermal Measurement of Energy*, E. GRIFFITHS, *Methods of Measuring Temperature*, PRESTON, *Heat*

16 Thermodynamics A course of twelve lectures on thermometry and pyrometry, gas and vapour equations and the fundamental principles of thermodynamics Text-books as for Course 15

17 A laboratory course on the accurate determination of physical constants, together with practice in laboratory arts This course involves about one hundred and fifty hours' laboratory work Text-books ALLEN AND MOORE, *Text-book of Practical Physics*, WATSON, *A Text-book of Practical Physics*, SEARLE, *Simple Harmonic Motion*, SEARLE, *Experimental Elasticity*, WORSNOP AND FLINT, *Practical Physics*

18 Calculations for Science Students A course of practical instruction in mathematical drawing, graphs and their applications, biological, mineralogical, chemical and physical calculations and their accuracy, elementary calculus and statistics Text-books TUTTLE, *Theory of Measurements*, S. P. THOMPSON, *Calculus Made Easy*, GILL, *School of Art Geometry*, D'ARCY THOMPSON, *Growth and Form*

19 A short course of lectures and laboratory work on Radiation, including atomic structure and radioactivity

20 Theory of Optics A course of lectures two a week throughout the year Text-books DRUDE, *Theory of Optics*, MANN, *Manual of Advanced Optics*, BALY, *Spectroscopy*, WOOD, *Physical Optics*, SCHUSTER, *Theory of Optics*, HOUSTON, *A Treatise on Light*

21 Elasticity A course of lectures, two a week throughout the year, dealing with the mathematical theory of elasticity with application to the theory of double refraction and polarisation of light Text-books POYNTING AND THOMSON, *Properties of Matter*, CHRISTIANSEN, *Elements of Theoretical Physics*, PELLAT, *Polarisation et Optique Crystalline*

22 Fourier's Series A course of fifteen lectures on Fourier's Series and its applications to Physics Text-books DONKIN, *Acoustics*, BYERLY, *Fourier's Series and Spherical Harmonics*, BARTON, *A Text-book on Sound*, CARSE AND SHEARER, *Fourier and Periodogram Analysis*, LAMB, *Dynamical Theory of Sound*, CARSLAW, *Fourier's Series and Integrals*

23 Thermodynamics A course of lectures, one a week throughout the year Text-books POYNTING AND THOMSON, *Heat*, PARTINGTON, *Thermodynamics*, MAXWELL, *Heat*, LEWIS, *System of Physical Chemistry*, WHETHAM, *Solution and Electrolysis*, PRESTON, *Heat*

24 Hydromechanics A course of fifteen lectures during the Easter term Text-books MINCHIN, *Hydrostatics*, BESANT, *Hydro-mechanics*, LAMB, *Hydrodynamics*, BARTON, *Mechanics of Fluids*, RAMSEY, *Hydrodynamics*

25 Colloidal Solutions A course of lectures on the physical properties of colloidal solutions Text-book BURTON, *The Physical Properties of Colloidal Solutions*

26 A course of seventy-five lectures on Electricity and Magnetism including the Electromagnetic Theory of Light, Electron Theory of Matter, Dispersion, Absorption, Polarisation, Magneto-Optics, Electrical Oscillations, Conduction of Electricity in Gases, and Radioactivity Text-books J J THOMSON, *Elements of Electricity and Magnetism*, *Recent Researches in Electricity and Magnetism*, *Conduction of Electricity through Gases*, ABRAHAM AND LANGEVIN, *Ions, Electrons, Corpuscles*, DRUDE, *Theory of Optics*, LORENTZ, *The Theory of Electrons*, N R CAMPBELL, *Modern Electrical Theory*, RUTHERFORD, *Radioactive Substances and their Radiations*, STARLING, *Electricity and Magnetism*, MILLIKAN, *The Electron*, *Radio Instruments and Measurements* (ed by Bureau of Standards)

27 A laboratory course designed as an extension of Course 17, and as an introduction to research work Text-books MANN, *Optics*, WATSON, *Practical Physics*, WORSNOP AND FLINT, *Practical Physics*, MAKOWER AND GEIGER, *Radioactivity*

A seminar is held once a fortnight in connection with this course, under the supervision of the Director of the Laboratory, at which reports on papers in the current physical journals are presented and discussed

28 A course of lectures and laboratory work, specially designed for students taking a one-year course in Physics Text-books BROWN, *Experimental Science, Physics*, DUNCAN AND STARLING, *Light and Sound*, HUTCHINSON, *Intermediate Electricity and Magnetism*

29 History of Physics CAJORI, *History of Physics*, WHITTAKER, *History of the Theories of Aether and Matter*, LODGE, *Pioneers of Science*, *The History of the Cavendish Laboratory*

30 High Frequency Alternating Currents A course of twenty-five lectures

31. Vector Analysis A course of twenty-five lectures COFFIN, *Vector Analysis*

32 Course of lectures and laboratory work in light introductory to Astronomy Four hours per week

Regulations—*Deposit Fee* Each student taking laboratory course 2, 6, 10, 11, 17, or 28 is required to make a deposit of three dollars (\$3 00) before beginning work All supplies, apparatus broken or destroyed and

all fines will be charged against this deposit, which must be renewed when exhausted. At the close of the session cash balances will be returned on a day appointed for the purpose.

#### Additional Text-books

General Physics WHITE, WATSON, GANOT, KIMBALL, HASTINGS AND BEACH, DESCHANEL (ed Everett), JAMIN, VIOLE, NICHOLS AND FRANKLIN, BARLOW, THOMSON AND TAIT, LEHFELDT, MILLIKAN AND GALE, MANN AND TWISS, DANIELL, H A WILSON, HOUSTON (*An Introduction to Mathematical Physics*), DUNCAN AND STARLING, *Dictionary of Applied Physics* (ed Glazebrook)

Elementary Mechanics ASHFORD, GLAZEBROOK, BRIGGS AND BRYAN, LONEY

Elementary Hydrostatics GLAZEBROOK, BRIGGS AND BRYAN, LONEY

Elementary Mechanics and Heat GREGORY AND HADLEY

Elementary Heat GLAZEBROOK, TYNDALL, BALFOUR STEWART, TAIT, DRAPER, DARLING, SCARLETT, STEWART AND SATTERLY *Senior Heat*

Elementary Light JONES, TYNDALL, TAIT, WRIGHT, GLAZEBROOK, EMTAGE

Elementary Electricity and Magnetism POYSER, GLAZEBROOK, LEHFELDT, CUMMING, DAY, ASHFORD, WAGSTAFF, HUTCHINSON, ASHFORD AND KEMPSON

Sound TYNDALL, TAYLOR, CAPSTICK, ZAHM

Geometrical Optics HERMAN, ALDIS, HEATH, PARKINSON, PERCIVAL, WHITTAKER, LRATHEM, SEARLE, SOUTHALL (*Geometrical Optics and Elementary Optics*), S P THOMPSON (*Optical Tables and Data*), VON ROHR, *Theory of Optical Instruments*, trans by R Kantchack, and A GLEICHEN, *Theory of Modern Optical Instruments*, trans by Elmsly and Swain, HOUSTOUN, *A Treatise on Light*

Mechanics PERRY (*Applied Mechanics*), BARTON (*Analytical Mechanics*), COX (*Mechanics*), THOMSON AND TAIT, LAMB (*Dynamics, Statics*), CRABTREE (*Spinning Tops*)

Hydromechanics GREENHILL, BASSET, BARTON (*Mechanics of Fluids*)

Sound (or Acoustics) DONKIN, RAYLEIGH, HELMHOLTZ, AIRY, KOENIG, LAMB, BARTON

Elasticity WILLIAMSON, LAMB, IBBETSON, LOVE, TODHUNTER, SEARLE

Physical Optics DRUDE, JAMIN, VERDET, BASSET, GLAZEBROOK, MACLAURIN, MASCART, SCHUSTER, WOOD, PRESTON, POYNTING (*Pressure of Light*), GEHRCKE, MALLIK, KAYSER

Heat and Thermodynamics CLAUSIUS, BUCKINGHAM, PARKER, WHEATHAM, PLANCK, PRESTON, MAXWELL, TAIT, PARTINGTON, DONNAN, LEWIS (*Physical Chemistry*), GIBBS, EWING (*The Production of Cold*), EWING (*The Steam Engine*), HOBBS (*The Thermo-dynamics of engine design*), CLAUDE

(*Liquid Air, Oxygen, Nitrogen*), DARLING (*Pyrometry*), LE CHATELIER, GRIFITH (*Method of measuring temperatures*), R BLONDLOT, *Introduction à l'étude de la Thermodynamique*, PHILLIPS, *Radiation*

Properties of Matter MEYER, *Kinetic Theory*, JEANS, *Dynamical Theory of Gases*, DARLING, *Liquid Drops and Globules*, TAIT *Properties of Matter*, EDSEER, *General Physics*, FINDLAY, *Osmotic Pressure*, PHILIP, *Physical Chemistry*, BOYS, *Soap Bubbles*, WILLOWS AND HATCHEK, *Surface Tension*, MCEWEN, *Properties of Matter*

Electricity and Magnetism POYNTING AND THOMSON, EMTAGE, MAXWELL, MASCART AND JOUBERT, GRAY, HEAVISIDE, DUBOIS, FOSTER AND PORTER, WEBSTER, STRUTT, SODDY, FOURNIER D'ALBÉ, ECCLES, BARLOW (*Mathematical Physics*, Vol 1), KNAPP, JAMES (*Alternating Currents*), DRYSDALE (*Alternating Currents*), LIVEN, HUTCHINSON, TURNER, *Wireless Telegraphy and Telephony*, SCOTT-TAGGART, *Wireless*

Colloidal Solutions BURTON, TAYLOR, HATSCHEK, SVEDBERG, OSTWALD, BANCROFT

Relativity CONWAY, CUNNINGHAM, ROBB, SILBERSTEIN, TOLMAN, EDDINGTON, CARMICHAEL, LAWSON, FREUNDLICH, CARR, EINSTEIN, WEYL, BECQUEREL

Modern Theories COMSTOCK AND TROLAND, DUNCAN, BRAGG (*X-rays and Crystal Structure*), SODDY, KAYE (*X-rays*), J J THOMSON, RUTHERFORD, CROWTHER (*Molecular Physics, Ions and ionising radiations*), CHADWICK, SOMMERFELD, ANDRADE (*Structure of the Atom*), RICHARDSON (*The Electron Theory of Matter*)

Practical Physics LOUDON AND MCLENNAN, STEWART AND GEE, BARNES, GLAZEBROOK AND SHAW, KOHLRAUSCH, AYRTON, FINDLAY, SCHUSTER AND LEES, SEARLE, TUTTLE (*An Introduction to Laboratory Physics*)

Practical Mathematics (and Mechanics) CLARKE, SAXELBY, CASTLE, CARSE AND SHEARER (*Pedagogic analysis*), GIBSON (*Graphs*), MINCHIN AND DALE, STERN AND TOPHAM, PERRY, GIBSON (*Graphs*), DE BRAY, *Exponentials made Easy*, BRODETSKY, *Nomography*, LIPKA, *Graphic and Mechanical Computation*

Calculus (suitable for Physics students) EDWARDS, EDSEER, LODGE, PROCTOR, BLAINE, MERCER, PERRY (for Engineers), GIBSON, MELLOR (*Higher Mathematics for students of Physics and Chemistry*), GRAHAM, ORMSBY, GODFREY AND SIDDON, LOVE, LAMB, PIAGGIO (*Differential Equations*)

Theory of Measurements and Errors LUTTON, STEVENS, MACGREGOR, GOODWIN, TUTTLE, HOLMAN, MERRIMAN, JOHNSON

Mathematical and Physical Tables BOTTOMLEY, CASTLE, CLARKE, CHAMBERS, DALE, HALL, KAYE AND LABY, MACFARLANE, MCAULAY, the Smithsonian, LONGLEY, WOODWARD, CHAPPELL, SILBERSTEIN

The Slide Rule BLAINE, DUNLOP AND JACKSON

## BIOLOGY

R R WRIGHT, M A , D Sc , LL D	<i>Professor Emeritus</i>
B A BENSLEY, B A , Ph D	<i>Professor of Zoology</i>
W H PIERSON, B A , M B	<i>Professor of Histology and Embryology</i>
E M WALKER, B A , M B	<i>Associate Professor of Biology</i>
A G HUNTSMAN, B A , M B	<i>Associate Professor of Marine Biology</i>
A F COVENTRY, B A	<i>Assistant Professor of Vertebrate Embryology</i>
W A CLEMENS, M A , Ph D,	<i>Assistant Professor of Limnobiology</i>
J R DYMOND, M A	<i>Assistant Professor in Systematic Zoology</i>
J W MACARTHUR, M A , Ph D	<i>Assistant Professor of Genetics</i>
E H CRAIGIE, Ph D,	<i>Lecturer in Comparative Anatomy and Neurology</i>
W H T BAILLIE, M A , M B	<i>Lecturer in Mammalian Anatomy</i>
N K BIGELOW, B Sc	<i>Assistant in Systematic Biology</i>
MISS N H C FORD, Ph D	<i>Instructor</i>
C C BROWN, Ph M B , M B	<i>Class Assistant</i>
A E MCCULLOCH, B A , M B	<i>Class Assistant</i>
H H MACKAY, B A	<i>Class Assistant</i>
MISS O MONKMAN	<i>Class Assistant</i>
F B WILSON, Ph M B , M B	<i>Class Assistant</i>

*Courses extending over only the Michaelmas or the Easter term are indicated as (m) and (e) respectively*

With the exception of Course I, the lectures and practical instruction in this department are given in the University Biological Building. The instruction includes courses in General Biology, Zoology, Comparative Anatomy, Histology and Embryology, these courses being indicated in the various prescriptions as Zoology 2, 3, 4, etc.

For supplementary reading, except as specified below, the General Reading List of the Department may be consulted.

The following courses are provided

## PASS COURSES

1 General Science. A course of seventy-five lectures on the general principles and applications of science. This is a co-operative course, given by members of the departments of Physics, Chemistry, Geology, Botany and Zoology.

2 Elementary Biology. (a) A general educational course of two hours a week on the principles of science as applied to living organisms. The instruction is chiefly zoological, emphasis being placed upon the history of animal types and upon the biological aspects of the nature and social development of mankind. (b) A practical course of fifty hours in illustration of the principles and laboratory methods of Biology.

3 Invertebrate Zoology. A course of one hundred hours lectures and laboratory work on the elements of the principal branches of zoology as

applied to the lower animals For reference SHULL, *Principles of Animal Biology*, COCKERELL, *Zoology*, PARKER AND HASWELL, *Text-book*, vol 1

4 Vertebrate Zoology A course of one hundred hours lectures and laboratory work on the principal branches of zoology as applied to vertebrates, with special reference to those of human application

#### HONOUR COURSES

5 Elementary Zoology A course of two lectures a week throughout the Easter term on the nature, structure and classification of animals For Honour Science students

6 Elementary Zoology A laboratory course of seventy-five hours on the general structure of the animal body, its organs and tissues and their functions, principles of adaptation, specialisation, and homology, based on selected types Text-book HEGNER, *College Zoology* For reference PARKER AND HASWELL, *Text-book of Zoology* (e)

7 Comparative Anatomy A laboratory course of one hundred and fifty hours, comprising dissection and comparative study of selected vertebrate types Part 1, Mammalian Anatomy (m), Text-book BENSLEY, *Anatomy of the Rabbit*, Part 2, Anatomy of Lower Chordates (e) For reference PARKER, *Zoology*, KINGSLEY, *Vertebrate Zoology*, PARKER AND HASWELL, *Text-book*, Vol 2, WILDERSHEIM, *Comparative Anatomy*, REYNOLDS, *Vertebrate Skeleton*, KINGSLEY, *Comparative Anatomy*, NEWMAN, *Vertebrate Zoology*

8 Vertebrate Zoology A course of twenty-five lectures on the system, structure and history of the vertebrates For reference, as above (7), GADOW, *Classification of Vertebrates*, SMITH WOODWARD, *Vertebrate Palaeontology*, WILDER, *History of the Human Body*

9 Invertebrate Zoology A course of twenty-five lectures and seventy-five hours laboratory work on the system and morphology of the invertebrates Text-book PARKER AND HASWELL, Vol I (m)

10 A course on mammalian anatomy and the system and natural history of animal foods For Household Science students (m)

11 Parasitology A course of fifty hours lectures and laboratory work on the parasites of man Text-book CHANDLER, *Animal Parasites and Human Disease* For reference PARKER AND HASWELL, *Text-book of Zoology*, Vol I, FANTHAM, STEPHENS AND THEOBALD, *Animal Parasites of Man*, RILEY AND JOHANNSEN, *Medical Entomology*, DOANE, *Insects and Disease*

12 Zoological Collection Students entering the Third Year in the special course of Biology are required to submit, as evidence of field proficiency, a collection of invertebrate animals from a prescribed group, together with an essay on the character and habits of the forms collected Special directions may be had on application to the Biological Department



13 Vertebrate Embryology A course of twenty-five lectures on the embryology of the vertebrates

14 A course of one hundred hours on limnobiology with special reference to the economic biology of fresh-water organisms

15 Problems of Biology An opportunity is afforded to advanced students to become acquainted with the main problems of biology and literature connected therewith. The instruction includes lectures and conferences conducted by different members of the staff, and a course of prescribed reading. The library is provided with the various works for consultation, a partial statement of which will be found in the departmental reading list

15a History of Biological Science A co-operative course dealing with the historical development of the biological branches

16 Vertebrate Embryology A laboratory course of one hundred hours on the general embryology of the vertebrates. For reference JENKINSON, *Vertebrate Embryology*, HERTWIG, *Lehrbuch der Entwicklungsgeschichte*, LILLIE, *Development of the Chick*, BAILEY AND MILLER, *Embryology*, KELLICOTT, *General Embryology*, CHORDAT, *Development*, PRENTISS, *Text-book of Embryology*, GRAHAM KERR, *Embryology*, MARSHALL, *Physiology of Reproduction*

17 A course of one hundred hours on the principles and practical methods of genetics

18 Structural Neurology A course of lectures and laboratory work on the structure and development of the mammalian nervous system. For reference EDINGER, *Anatomy of the Nervous System*, HERRICK, *Introduction to Neurology*

18a Comparative Neurology A course of sixty hours lectures and laboratory work, designed to follow Course 18 or Anatomy 2. In this course is presented an outline of the evolutionary development and significance of the internal anatomy of the central nervous system. For reference KAPPERS, *Vergleichende Anatomie des Nervensystems der Wirbeltiere und des Menschen*

19 Zoological Collection Students entering the Fourth Year in any one of the subdivisions of Biology are required to submit a collection of vertebrate animals from specified groups, together with an essay on the characters and habits of the forms collected. For reference JORDAN, *Manual of Vertebrates*

20 A lecture and laboratory course of one hundred hours on general invertebrate and vertebrate histology and cytology, including histological technique. Text-book DAHLGREN AND KEPNER, *Principles of Animal Histology*. For reference WILSON, *The Cell in Development and Inheritance*, GURWITSCH, *Morphologie und Biologie der Zelle*, SCHNEIDER, *Histologie der Thiere*, PRENANT, BOUIN, MAILLARD, *Traité d'Histologie* (Vol. I, Cytology), SHARP, *Introduction to Cytology*

21 Vertebrate Zoology A practical course of one hundred hours of laboratory and museum work on the morphology, classification and distribution of the vertebrates For reference GADOW, *Classification of Vertebrates*, FLOWER AND LYDEKKER, *Mammals Living and Extinct*, LYDEKKER, *Geographical History of Mammals*, *Cambridge Natural History*, Vols VII-X, REYNOLDS, *The Vertebrate Skeleton*, FLOWER, *Osteology of the Mammalia*, SMITH WOODWARD, *Outlines of Vertebrate Palaeontology*, PARKER AND HASWELL, Vol 2, WILLEY, *Amphioxus*, WIEDERSHEIM, *Comparative Anatomy*

22 Advanced Invertebrate Zoology A course of one hundred hours of lectures, laboratory and museum work on the morphology, embryology, classification and distribution of the invertebrates This course is also designed to give training in laboratory methods and microscopic technique For reference PARKER AND HASWELL, Vol I, HERTWIG'S *Zoology*, edited by Kingsley, *Cambridge Natural History*, Vols I-VI, KORSCHULT AND HEIDER, *Embryology*, SCHNEIDER, *Histologie der Thiere*, selected papers, LEE, *Microtomist's Vade Mecum*, GUYER, *Animal Micrology*

23 A special course of one hundred hours on the system and natural history of animals, with special reference to those of Ontario or of Canada.

Research The members of the staff in this department are prepared to suggest problems for investigation in certain branches and to provide materials and laboratory facilities for properly qualified students See "Calendar of the School of Graduate Studies"

#### COURSES IN THE FACULTY OF MEDICINE

24 A course of ninety lectures serving as an introduction to the biological fields in relation to medicine The topics include (1) the general nature of living organisms and of cell processes, (2) the types of lower organisms of interest to students in Medicine, (3) the elements of comparative anatomy, and (4) biological principles as applied to man

25 A laboratory course of one hundred and eighty hours, including microscope practice, elementary experimental studies on the nature of cell processes, types of lower organisms, and a selected list of vertebrates

The entire course of two hundred and forty hours in the second year of Medicine consists of Courses 26-29

26 A course of ten lectures and twenty hours laboratory work introductory to embryology and histology

27 A course of fifteen lectures and sixty hours laboratory work on histogenesis and general histology

28 A course of twenty lectures and forty hours laboratory work on the development of the human body

29 A course of fifteen lectures and sixty hours laboratory work on human microscopic anatomy

NOTE—Courses 26 to 29 are given in conjunction with the Department of Anatomy

30 An introductory course of fifty lectures on the principles of evolution heredity and eugenics Second Year option

31 A course of sixty hours laboratory work on embryology (including technique) with special reference to the problems of mammalian and human embryology Third Year option

32 A course of sixty hours laboratory work on advanced vertebrate histology and cytology, including technique Third Year option

33 Parasitology Third Year option See Course 11

34 Problems of Biology. Third Year option See Course 15

35 Comparative Neurology Third Year option See Course 18a

#### COURSE IN THE FACULTY OF APPLIED SCIENCE

36 A practical course in experimental biology including the general principles of biology and microscope practice with the lower organisms

#### COURSES IN THE FACULTY OF FORESTRY

In addition to Courses 5 and 6, which are taken by students in Forestry, the following special courses are provided

37 Forest Entomology, twenty-five lectures and fifty hours laboratory work (e) Text-book FERNALD, *Applied Entomology* For reference FELT, *Insects of Park and Woodland Trees*

38 A short course on the principles of conservation as applied to animals

#### UNIVERSITY EXTENSION

39 An elementary course on the general structure of the animal body, its organs and tissues and their functions, classification and natural history of the common animals of Ontario, with special attention to principles of specialization, adaptation and distribution The course is designed to give the student training in scientific method and also to afford assistance in the teaching of nature study

## BOTANY

J H FAULL, B A, PH D	Professor
R B THOMSON, B A	Associate Professor of Phanerogamic Botany
H B SIFTON, M A, PH D	Assistant Professor
G H DUFF, M A, PH D	Lecturer
MISS J G WRIGHT, PH D	Lecturer
A R WALKER, M A	Instructor
MISS C W FRITZ, B A, M Sc	Instructor
J W ANSLEY, B A	Class Assistant
MISS M B GIVENS, B A	Class Assistant
G D DARKER, B A	Assistant
C G RILEY, B S A	Assistant
J L HART	Assistant
W R WATSON	Assistant

*Courses extending over only the Michaelmas or the Easter term are indicated as (m) and (e) respectively*

The lectures and practical instruction in this subject are given in the Botany and Forestry Building

The following courses are provided

## PASS COURSES

1 General Science Course See p 256

2a Introductory Course in Botany An introductory course of two hours a week on the general principles of Biology based mainly on the seed plants Text-books GANONG, *A Text-book of Botany for Colleges*, BERGEN, *A Key and Flora* (Northern and Central States Edition) For reference KERNER AND OLIVER, *Natural History of Plants*

2b A laboratory course of two hours a week in connection with Course 2a

3 A lecture and laboratory course on the lower plants Four hours a week Reference books CURTIS, *Nature and Development of Plants*, GANONG, *A Text-book of Botany for Colleges*, LISTER, *Mycetozoa*, JORDAN, *General Bacteriology*, DUGGAR, *Fungous Diseases of Plants*, STEVENS, *Diseases of Economic Plants*, CLUTE, *Our Ferns in their Haunts*

4 A lecture and laboratory course on the physiology and the adaptive relationships of plants, and on the general principles of heredity and plant breeding Four hours a week

## HONOUR COURSES

5 Elementary Botany A course of twenty-five lectures on the life structure and classification of plants Text-book CURTIS, *Nature and Development of Plants* For reference COULTER, BARNES AND COWLES, *Text-book of Botany*, GANONG, *A Text-book of Botany for Colleges*, KERNER AND OLIVER, *Natural History of Plants* (m)

6. A laboratory course of fifty hours in connection with Course 5 (m)

7. Phanerogamic Botany. A course of twenty-five lectures and seventy-five hours laboratory work on the anatomy and morphology of the flowering plants. Text-book STRASBURGER, JOST, SCHENCK AND KARSTEN, *Text-book of Botany*, 5th English Edition (1922), and GRAY, *New Manual of Botany*. For reference COULTER, *Seed-Plants*, BRITTON AND BROWN, *An Illustrated Flora* (e)

8. Classification of Flowering Plants. A lecture and laboratory course of fifty hours in which representatives of the main divisions of the flowering plants are studied in illustration of the fundamental principles of classification. Reference is also made to distribution, especially of the local flora, and to the food plants and other economic plants of the group (m)

9. Botanical Collection. Students entering the Second Year in Biology are required to submit a collection of at least 100 species of flowering plants, properly pressed, classified, mounted and labelled. For reference GRAY, *New Manual of Botany*, BRITTON AND BROWN, *An Illustrated Flora of the Northern United States and Canada*

10. A course of 100 hours dealing with the lower seed-plants, living and fossil. Text-book COULTER AND CHAMBERLAIN, *Morphology of Gymnosperms*. For reference SCOTT, *Fossil Botany*, PENHALLLOW, *North American Gymnosperms*, DEBARY, *Comparative Anatomy of the Phanerogams and the Ferns*, JEFFREY, *Anatomy of Woody Plants*

11. A course of 100 hours dealing with the higher seed-plants. Text-book COULTER AND CHAMBERLAIN, *Morphology of Angiosperms*. For reference DEBARY, *Comparative Anatomy of the Phanerogams and the Ferns*, JEFFREY, *Anatomy of Woody Plants*

12. Cryptogamic Botany. A lecture and laboratory course of one hundred and twenty-five hours on the system and morphology of the higher cryptogams. For reference COULTER, BARNES AND COWLES, *Text-book of Botany*, Vol. I, CAMPBELL, *Mosses and Ferns*, BOWER, *Origin of a Land Flora* (m)

13. Microbiology, an elementary course on the morphology and physiology of Bacteria, Yeasts and Molds for Household Science students. For reference BUCHANAN, *Household Bacteriology*, MARSHALL, *Microbiology*, SAVAGE, *Bacteriological Examination of Food and Water*, CONN, *Bacteria, Yeasts and Molds in the Home*, TANNER, *Bacteriology and Mycology of Foods*, GUILLIERMOND-TANNER, *The Yeasts*, HEINEMANN, *Milk* (e)

14. Cryptogamic Botany. A lecture and laboratory course of one hundred and twenty-five hours on the system and morphology of the algae, fungi, bacteria, and slime molds. For reference LISTER, *Mycetozoa*, JORDAN, *General Bacteriology*, FITTING, JOST, SCHENCK AND KARSTEN, *Lehrbuch der Botanik*, DEBARY, *Comparative Morphology and Biology of the Fungi, Mycetozoa and Bacteria*, DUGGAR, *Fungous Diseases of Plants*, OLTMANN, *Morphologie und Biologie der Algen*

15 Classification of cryptogams A lecture and laboratory course of fifty hours in which representatives of selected groups of cryptogams are studied from the taxonomic standpoint Reference is also made to distribution, especially of the local flora (e)

16 Botanical Collection Students entering the Fourth Year in Biology are required to submit a collection of cryptogamic plants from prescribed groups

17 Plant Physiology A course of twenty-five lectures and seventy-five hours laboratory work on the physiology of plants For reference JOST, *Plant Physiology*, GANONG, *The Living Plant*, PFEFFER, *Physiology of Plants*, PALLADIN (Livingston), *Plant Physiology* (e)

18 Oecology and Plant Geography A course on factors of habitat and the adaptations of plants to them, plant associations and their geographical distribution For reference WARMING, *Ecology of Plants*, SCHIMPER, *Plant Geography* One hundred hours

19 An advanced course of one hundred hours on the physiology of plants

20 A lecture and seminar course on the history of Botany and on the general principles of Biology as related to botanical problems Text-book WALTER, *Genetics* A list of other assigned literature is obtainable on application to the Department Students proposing to take this course should secure this list at the close of their third year

20a Heredity and Plant Genetics A lecture and laboratory course of one hundred hours

21 Students in the Third and Fourth Years of the Special Course in Biology will be expected to show a reading knowledge of French and German

22 Plant Pathology A lecture, seminar, and laboratory course of one hundred hours on the diseases of plants

23 Palaeobotany A course of fifty hours on fossil plants

24 Research studies on selected topics for advanced students One hundred and fifty hours

Research The members of the staff in this department are prepared to suggest problems for investigation in certain branches and to provide materials and laboratory facilities for properly qualified students

#### COURSE IN THE FACULTY OF APPLIED SCIENCE

25 A lecture and laboratory course of seventy-five hours on fundamental biological principles

#### COURSE IN THE FACULTY OF FORESTRY

26 Plant Pathology A lecture and laboratory course of seventy-five hours on the diseases of plants, especially of trees

## UNIVERSITY EXTENSION

27 A course in Botany, with the emphasis on the Natural History of Plants, including a knowledge of the various types of plant life, and the classification, oecology and uses of both native and introduced forms. Some attention will also be given to the origin of our cultivated plants. The course is designed as a General Course in Botany to meet especially the needs of the Nature Study Teacher.

## ANATOMY

J. PLAYFAIR McMURRICH, M A , Ph D , LL D	<i>Professor</i>
W H PIERCIE, B A , M B	<i>Professor of Histology and Embryology</i>
J C. WATT, M A , M D	<i>Associate Professor</i>
E A LINELL, Ch B , M D	<i>Assistant Professor</i>
H G ARMSTRONG, M B	<i>Demonstrator</i>
H DE W BALL, M B	<i>Demonstrator</i>
H A CATES, M B	<i>Demonstrator</i>
MISS L A CHASE, B A , M B	<i>Demonstrator</i>
W A COSTAIN, M B	<i>Demonstrator</i>
B L GUYATT, M B	<i>Demonstrator</i>
A L HUETHER, B A , M B	<i>Demonstrator</i>
A S LAWSON, M B	<i>Demonstrator</i>
E A McCULLOCH, B A , M B	<i>Demonstrator</i>
J M MACDONALD, M D , C M	<i>Demonstrator</i>
H H MACKAY, B A	<i>Demonstrator</i>
A G MCPHEDRAN, B A , M B	<i>Demonstrator</i>
E E SHOULDICE, M B	<i>Demonstrator</i>
W E L SPARKS, M B	<i>Demonstrator</i>
H G WILLSON, B A , M D	<i>Demonstrator</i>
O C J WITHROW, M B	<i>Demonstrator</i>

1 Practical Anatomy —A laboratory course extending throughout the year

2 Histology —A course of lectures and laboratory work, extending throughout the year

3 Embryology —A course of lectures and laboratory work dealing with the development of the human body

4 Anatomy of the Nervous System —A course of three lectures a week, with demonstrations twice a week, throughout the Michaelmas term

5 Topographic Anatomy —A course of two lectures a week throughout Easter term

6 Anatomical Research —Opportunities will be afforded to properly qualified students for carrying on investigation in anatomical problems

Text-books PIERCIE, *Human Anatomy*, MORRIS, *Human Anatomy*, CUNNINGHAM, *Text-book of Anatomy*, GRAY, *Anatomy, Guide to the Dis-*

*section of the Human Body*, SOBOTTA-MCMURRICH, *Atlas and Text-book of Human Anatomy*, SPALTEHOLZ, *Hand Atlas of Human Anatomy*, TOLDT, *Atlas of Human Anatomy*, MCMURRICH, *The Development of the Human Body*, HERRICK, *Introduction to Neurology*, VILLIGER, *Brain and Spinal Cord*, BARKER, *The Nervous System*, RANSON, *The Anatomy of the Nervous System*

## BIOCHEMISTRY

A HUNTER, M A, B Sc, M B, CH B	Professor
H WASTENEYS, PH D	Associate Professor
MISS C C BENSON, B A, PH D	Associate Professor of Physiological Chemistry in the Faculty of Household Science
H B SPEAKMAN, M Sc	Associate Professor of Zymology
MISS J MCFARLANE, M A	Demonstrator
H BORSOOK, M A	Fellow (Easter Term)
J A DAUPHINEE, M A	Fellow
G S EADIE, B A, M B	Fellow
G M MCFARLANE, B A	Fellow
J A MORRELL, M A	Fellow (Michaelmas Terms).

The following courses of instruction, each extending throughout the session, are offered

- 1 A course of lectures in General Biochemistry, three hours a week
- 2 A course of lectures and conferences in Advanced Biochemistry. two hours a week
- 3 A laboratory course in General Biochemistry, four to six hours a week
- 4 An advanced laboratory course in Biochemistry, six or more hours a week
- 5 A course of lectures on the Principles of Nutrition, one hour a week during the Easter term Open only to students who have taken Course 1
- 6 Lecture course on Enzyme Chemistry One half-hour a week
- 7 Research in Biochemistry.

## Text-books and Works of Reference

(a) Elementary or General HAMMARSTEN, *Text Book of Physiological Chemistry*, ABDERHALDEN-HALL, *Text Book of Physiological Chemistry*, MATHEWS, *Text Book of Physiological Chemistry*, ROBERTSON, *Principles of Biochemistry*

(b) Advanced or Special *Monographs on Biochemistry*, edited by Plimmer and Hopkins, ROBERTSON, *Physical Chemistry of the Proteins*, TAYLOR, *Digestion and Metabolism*, LUSK, *Science of Nutrition*, EFFRONT, *Biochemical Catalysts in Life and Industry*, EULER, *General Chemistry of the Enzymes*, ABDERHALDEN, *Biochemisches Handlexikon*, NEUBERG, *Der Harn*



## Laboratory Handbooks

(a) Elementary PLIMMER, *Practical Organic and Biochemistry*, HAWK, *Practical Physiological Chemistry*, FOLIN, *Laboratory Manual of Biological Chemistry*, HALLIBURTON, *Essentials of Chemical Physiology*, COLE, *Practical Physiological Chemistry*

(b) Advanced ABDERHALDEN, *Handbuch der biochemischen Arbeitsmethoden*, ELLINGER, *Analyse des Harns*

## FOOD CHEMISTRY

MISS C C BENSON, PH D

*Associate Professor*

MISS J PANTON, B A

*Instructor*

MISS F BURWASH, B A

*Assistant*

## HONOUR COURSES

1 A course of lectures, two a week, on the Chemistry of Foods and Nutrition

2 A laboratory course on the Chemistry of Foods, with discussion of supplementary reading Six hours a week

3 An advanced laboratory course on the Chemistry of Foods and on problems of Nutrition

4 Research work on Food Chemistry and Metabolism

## PASS COURSES

5 Chemistry of Food Constituents Laboratory work for pass students of the Third Year One afternoon a week

6 Composition of Foods Lectures and laboratory work for pass students of the Fourth Year Four hours a week

Text-books and works of reference include WINTON, *Food Analysis*, LEACH, *Food Inspection and Analysis*, LUSE, *Science of Nutrition*, PAVLOV, *The Work of the Digestive Glands*, ALLYN, *Elementary Applied Chemistry*, SNYDER, *Human Foods*, HALLIBURTON, *Essentials of Chemical Physiology*, Canadian and American bulletins on the chemistry of foods

PHYSIOLOGY

J J R MACLEOD, M B, CH B, D P H, D Sc, F R S	<i>Professor</i>
J M D OLMSTED, M A, Ph D	<i>Associate Professor</i>
N B TAYLOR, M B	<i>Assistant Professor</i>
M J WILSON, M A, M B	<i>Demonstrator</i>
F N ALLAN, M B	<i>Demonstrator</i>
A C TAYLOR, B A	<i>Fellow</i>
J HEPBURN, M B	<i>Fellow (part time)</i>
R S LANG, M A, M B	<i>Fellow (part time)</i>
H D LOGAN, M B	<i>Fellow (part time)</i>
N A MCCORMICK, M A	<i>Fellow (part time)</i>
E C NOBLE, M A	<i>Fellow (part time)</i>
W P WARNER, M B	<i>Fellow (part time)</i>
W R FRANKS	<i>Fellow (part time).</i>

The following courses of instruction, each extending throughout the Session, are offered

- 1 Systematic lectures and demonstrations in human physiology Four hours a week
- 2 Lectures in general physiology
- 3 Advanced lectures Two hours a week
- 4 General laboratory courses (Total of 135 hours)
  - (a) Neuro-muscular Physiology
  - (b) Circulation, respiration and digestion
  - (c) Nervous system and special senses
- 5 Laboratory course in general physiology
- 6 Advanced laboratory courses
- 7 Research in physiology
- 8 Journal Club One hour a week
- 9 Elementary lectures on the principles of human physiology
- 10 History of Physiology A course of lectures supplemented by discussions Two hours a week

Text-books and works of reference G N STEWART, *Manual of Physiology*, J J R MACLEOD, *Physiology and Biochemistry in Modern Medicine*, STARLING's or HOWELL's *Physiologies*, BAYLISS, *General Physiology*, LUCIANI, *Physiology* (trans by F Welby), *Monographs in Physiology* (ed by E H Starling) *Monographs in Experimental Biology* (ed by J Loeb and W J V Osterhout) Other works important for consultation are MARSHALL, *Physiology of Reproduction*, SCHAFER, *Endocrine Organs*, *Text-book of Physiology* (ed by E A Schäfer), *Recent and Further Advances in Physiology* (ed by Leonard Hill), C S SHERRINGTON, *Mammalian Physiology*

## CHEMISTRY

W L MILLER, B A , Ph D	<i>Professor of Physical Chemistry</i>
F B ALLAN, Ph D	<i>Professor of Organic Chemistry, Secretary of the Department of Chemistry</i>
F B KENRICK, M A , Ph D	<i>Professor.</i>
J B FERGUSON, B A	<i>Associate Professor</i>
J T BURT-GERRANS, PHM B , M A, Associate Professor of Electrochemistry	
L J ROGERS, M A	<i>Assistant Professor.</i>
W S FUNNELL, M A	<i>Assistant Professor</i>
W H MARTIN, Ph D	<i>Assistant Professor</i>
W G BIRRELL, B A Sc	<i>Assistant in Electrochemistry.</i>
MISS E V EASTCOTT, M A	<i>Assistant</i>
J D GARRARD, B A	<i>Assistant.</i>
A R GORDON, M A	<i>Assistant in Electrochemistry.</i>
G I HOOVER, B A	<i>Assistant</i>
C M JEPHCOTT, B A	<i>Assistant</i>
M J MULLIGAN, B A	<i>Assistant</i>
R A PROSSER, B Sc	<i>Assistant</i>
E M SPARLING, B A	<i>Assistant</i>
C W SWEITZER, B A	<i>Assistant</i>
R B WALKER, B A	<i>Assistant</i>
A E R WESTMAN, M A	<i>Assistant in Electrochemistry</i>

This subject forms part of the courses of study prescribed for students proceeding to degrees in Arts, Applied Science, Forestry and Medicine

In the Honour Course "Chemistry and Mineralogy" in the Faculty of Arts, provision is made by suitable options for students who wish to qualify as Specialists in Science under the Department of Education, in the Honour Course "Chemistry" no such provision is made. In both these courses the laboratory work of the fourth year consists of research in one of the branches of chemistry, and arrangements have been made under which this work may be carried out by students of the "Chemistry" course either in the Chemical Laboratory or in the laboratories of the department of Chemical Engineering or of Biochemistry, and in the case of students in the "Chemistry and Mineralogy" course either in the Chemical Laboratory or in the laboratories of the department of Chemical Engineering.

## LECTURES

The following courses are provided

1. Elementary Chemistry An introductory course in general chemistry with experimental illustrations Two lectures a week
- 2 A course of lectures on the influence of chemistry on the progress of civilization Two lectures a week during session Note—These lectures

are intended for fourth year Pass students but if the class is too small to justify the giving of this course, Course 7 with appropriate laboratory work will be substituted

3 Elementary Organic Chemistry A course of experimental lectures on the systematic classification of the aliphatic compounds and some of the more common aromatic compounds Two lectures a week

4 Organic Chemistry The work in Course 3 is reviewed and extended, fuller consideration being given to the isocyclic compounds Two lectures a week

5 Advanced Organic Chemistry A course on heterocyclic compounds, synthetic methods and stereochemistry Two lectures a week

6a History of Chemistry A short course of lectures, commencing in January, on the development of chemistry and chemical theory

6b Essays on Prescribed Topics

7 Elementary Physical Chemistry An experimental course on the elements of chemical mechanics and electrochemistry Two hours a week.

8 Elementary Electrochemistry Twenty-five lectures illustrated by experiments

9 A course on the application of geometry and the calculus to physico-chemical problems Two hours a week

10 Chemical equilibrium in two-component systems, based on the theory of chemical potential Two hours a week

11 Advanced Physical Chemistry The phase rule, chemical thermodynamics, and chemical kinetics Two hours a week

12a Applied Chemistry

12b Applied Organic Chemistry

#### LABORATORY WORK

13 Elementary quantitative chemistry

14 Elementary quantitative chemistry (shorter course)

15 Analysis, chemical mechanics and organic preparations Four hours a week

16. Quantitative and qualitative analysis

17 Analysis of minerals and rocks

18 Analysis, organic preparations and physico-chemical measurements.

19 Practical organic chemistry

20 Physico-chemical measurements, and electro-chemistry

21 Research work for advanced students

24 A short course of physico-chemical measurements, including electrical conductivity, migration, and freezing point of solutions

- 25 Electrochemistry, to accompany lecture Course 8
- 26 A laboratory course to accompany Course 2
- 27. Analysis, including electroanalysis.
- 28 Chemical equilibrium between salts and their aqueous solutions
- 29 Chemical equilibrium, including silicates.

#### LABORATORY REGULATIONS

Each student proposing to attend lectures or practical work in the chemical laboratory must apply for a card which will have marked on it the number of his seat in the lecture room, of his working place in the laboratory and of his locker. These cards will be given only to students presenting their registration cards; and no working place in the laboratory will be allotted until a deposit of four dollars (for some classes three dollars) has been made. Each student will be held responsible for the seat, etc., allotted him, and no change may be made without permission. At the close of the Easter term this card must be presented for certificate of attendance.

Each student is provided with a suitable note-book in which to keep an account of the work done by him during the year. These books will be examined from time to time, and marks will be assigned. The student's standing in practical chemistry is based upon these marks, together with those assigned for the practical examinations of the term, and for written examinations on the work.

An account will be kept with each student, all apparatus broken or destroyed and all fines will be charged against his deposit, which must be renewed when exhausted.

The apparatus provided is intended for use in the laboratory only, and may not be removed from the building. At the close of the term's work it must be returned clean and dry.

#### GEOLOGY AND PALÆONTOLOGY

A. P. COLEMAN, M.A., PH.D., D.Sc., LL.D., F.R.S.	<i>Professor Emeritus</i>
W. A. PARKS, B.A., PH.D.	<i>Professor of Geology</i>
E. S. MOORE, M.A., PH.D.	<i>Professor of Economic Geology</i>
A. MACLEAN, B.A.	<i>Associate Professor</i>
W. S. DYER, PH.D.	<i>Class Assistant</i>
T. L. GLEDHILL, M.A.	<i>Class Assistant</i>
P. S. WARREN, B.A.	<i>Class Assistant</i>
S. F. KELLY, B.Sc.	<i>Assistant</i>

#### PASS COURSES

1 Elementary Geology and Physiography. A course of twenty-five lectures is given weekly throughout the session. Works of reference SCOTT, *Introduction to Geology*, DAVIS, *Physical Geography*, COLEMAN AND PARKS, *Elementary Geology*.

2 (a) A course of fifty lectures and (b) fifty hours' practical work, designed to cover the whole field in a general way Works of reference As in course No 1

3 Dynamic and Structural Geology A shorter course for students of the pass course Twenty-five lectures

4 Palaeontology (a) A course of twenty-five lectures on Invertebrate and Vertebrate Palaeontology, (b) a laboratory course of fifty hours

5 Historical Geology A course of fifty lectures and fifty hours laboratory work on historical geology and palaeontology with special reference to Canada

#### HONOUR COURSES

6 Historical and Stratigraphical Geology and Palaeontology A course of fifty lectures is given throughout the session Works of reference SCOTT, *Introduction to Geology*, COLEMAN AND PARKS, *Elementary Geology*, GEIKIE, *Text-book of Geology*, PIRSON AND SCHUCHERT, *Text-book of Geology*, GRABAU, *Text-book of Geology*

7 Illustrative practical course to accompany No 6 A course of thirty hours in the use of maps and sections, and the study of fossils typical of the different formations.

8 Dynamical and Structural Geology A course of fifty lectures Works of reference GEIKIE, *Geology*, CHAMBERLIN AND SALISBURY, *Geology*, LEITH, *Structural Geology*

9 Invertebrate Palaeontology A course of fifty lectures throughout the session Works of reference Eastman's translation of ZITTEL's *Text-book of Palaeontology*, NICHOLSON, *Manual of Palaeontology*, GRABAU, *North American Index Fossils*

10 Invertebrate Palaeontology A laboratory course of seventy-five hours Works of reference As in course No 9, Palaeontological publications of the Geological Survey of Canada, and of the different State surveys, Bulletins and Monographs of the Geological Survey of the United States

11 Drawing and Cartography A practical course of fifty hours in the Faculty of Applied Science

12 Precambrian Geology A course of twenty-five hours throughout the session Works of reference VAN HISE AND LEITH, *Geology of the Lake Superior Region*, GEIKIE, *Text-book of Geology*, CHAMBERLIN AND SALISBURY, *Geology*, Vol II, Reports of the Geological Survey of Canada and of the Ontario Department of Mines

13 Glacial Geology and Physiography A course of twenty-five lectures throughout the session Works of reference GEIKIE, *Great Ice Age*, PENCK, *Morphologie der Erdoberfläche*, DE LAPPARENT, *Géographie Physique*

14 Geological Surveying and Cartography A course of field work and practical work in drafting Three hours per week throughout the year

15 Economic Geology A course of fifty lectures throughout the session Works of reference KEMP, *The Ore Deposits of the United States and Canada*, RIES, *Economic Geology*, EMMONS, *General Economic Geology*, MOORE, *Coal*, BECK, *The Nature of Ore Deposits*, SPURR, *Ore Magmas*, Reports of the Geological Survey of Canada and of the Ontario Department of Mines

16 Practical Economic Geology A course of fifty hours laboratory work to illustrate course No 15

17 Meteorology A course of twenty-five lectures Works of reference DAVIS, *Elementary Meteorology*, HANN, *Klimatologie*

18 Vertebrate Palæontology A course of twenty-five lectures Works of reference WOODWARD, *Vertebrate Palæontology*, NICHOLSON AND LYDEKKE, *Manual of Palæontology*, ZITTELL, *Text Book of Palæontology*, Vol II (translation by Eastman)

19 Stratigraphic Palæontology A course of seventy-five hours lectures and laboratory work Works of reference The publications in the Library of the Department, including various monographs on special subjects and the palæontological reports of the different states and societies

20 Mining Geology A course of twenty-five lectures on geological problems associated with mining, typical mining regions in Canada, the United States, and elsewhere being discussed from the geological side Works of reference As in courses Nos 12 and 15.

21 A course of twenty-five lectures on Economic Geology and Geography for students in the course of Commerce Works of reference HUNTINGTON AND CUSHING, *Principles of Human Geography*

22 Vertebrate Palæontology A laboratory course of twenty-five hours

## MINERALOGY AND PETROGRAPHY

T L WALKER, M A , PH D

Professor

A L PARSONS, B A

Associate Professor

J E THOMSON, B A Sc

Assistant Professor

H C RICKABY, M A

Assistant

E W TODD, B A

Assistant

For students in the Faculty of Arts of the University of Toronto the following courses of lectures and demonstrations have been arranged

1 Elementary Mineralogy A course of twenty-five lectures once a week throughout the year Books of reference DANA, *Text-book of Mineralogy*, ROGERS, *Study of Minerals and Rocks*

2 A short practical course illustrative of the above, involving twenty hours' laboratory work Books of reference As for Course 1

3 Morphological Crystallography A course of twenty-five lectures once a week throughout the year Book of reference WALKER, *Crystallography*

4 Blowpipe Analysis and Determinative Mineralogy A laboratory course of three hours a week throughout the year (two hours a week for pass students) Books of reference EAKLE, *Mineral Tables*, LEWIS, *Determinative Mineralogy*

5 Determinative Mineralogy A laboratory course in continuation of Course 4 Two hours a week Book of reference LEWIS, *Determinative Mineralogy*

6 Physical Mineralogy A course of fifty hours' lectures and laboratory work, introducing the student to optical and physical crystallography as a preparation for the study of microscopic petrography (seventy-five hours for pass students) Books of reference DANA, *Text-book of Mineralogy*, WALKER, *Crystallography*

7 Practical Crystallography, including goniometric measurements, crystal drawing, projection and calculation with experiments in physical mineralogy One day a week during the Michaelmas term

8 Systematic Mineralogy A course of fifty hours' lectures and laboratory work, being a continuation of courses 1 and 2 Books of reference DANA, *Text-book of Mineralogy*, EAKLE, *Mineral Tables*

9 General Mineralogy Twenty-five lectures on special subjects to be selected from year to year Books of reference KOBELL, *Geschichte der Mineralogie*, FOUQUÉ ET MICHEL-LÉVY, *Synthèse des Minéraux et des Roches*

10 General Mineralogy Practical course of seven hours a week throughout the year

11 Petrography One hour a week lectures and practical work throughout the session Books of reference KEMP, *Handbook of Rocks*, HARKER, *Petrology for students*

12 Petrography Two hours a week devoted to practical petrography, both macroscopic and microscopic Books of reference LUQUER, *Minerals in Rock Sections*, HARKER, *Petrology for Students*

13 Assaying Laboratory work in the different branches of the subject, occupying three hours a week throughout the session

14 Advanced Petrography Twenty-five lectures on the characteristics of the rock-forming minerals and on general petrography. Book of reference IDDINGS, *Rock Minerals*

15 Mineralography Fifty hours laboratory work in the study of opaque minerals by microscopic methods in reflected light Book of reference DAVY AND FARNHAM, *Microscopic Examination of the Ore Minerals*

16 A course in Mineral Analysis, seventy-five hours

17 Metallurgy, an introductory course of twelve hours

The work in Mineralogy is carried on in the Mineralogical Laboratories in the Mining Building



## HOUSEHOLD SCIENCE

## MEMBERS OF THE FACULTY OF HOUSEHOLD SCIENCE

MISS A L LAIRD, M S	<i>Associate Professor</i>
MISS L K STEWART, M S	<i>Assistant Professor</i>
MISS E M McMILLAN, PH B	<i>Lecturer</i>
MISS H R COATSWORTH, B A	<i>Lecturer</i>
MISS F M GRAPER, B.S., M A	<i>Instructor</i>
MISS E W PARK, M A	<i>Instructor</i>

## PASS COURSES

1a History of Home Life A course of lectures one hour a week throughout the session

3a Textiles and Household Management A course of two lectures and one laboratory period a week throughout the session

4a Foods and Food Values A course of two lectures and one laboratory period a week throughout the session

## HONOUR COURSES

1b Household Science A course of lectures one hour a week throughout the session

2 Textiles and Household Management A course of ten hours a week throughout the session This includes (a) a study of textiles, (b) a study of metals, woods, etc., used in the home, and the principles underlying their care, (c) the house, (d) the home care of the sick

3b Foods and Food Values A course of twelve hours a week throughout the session—lectures and laboratory work

4b Economics of the Household A course of lectures and discussions two hours a week throughout the session It includes the economics of spending, the division of the income, etc

4c Dietetics A lecture course of two hours a week throughout the session and discussion periods, two hours a week

4d An advanced laboratory course of six hours a week throughout the session designed to illustrate the lectures in Course 4c Each student also investigates a problem related to her work

## COURSE IN DEPARTMENT OF PUBLIC HEALTH NURSING

5 A lecture course in nutrition and dietetics, family budgets are also discussed

Occasional Work Under certain conditions, occasional students may be admitted to Courses 3a and 4a

Graduate Work Opportunities are offered in the laboratories to graduate students who desire to engage in research work

Laboratory deposit fee a deposit of three dollars (\$3 00) is required of each student taking laboratory courses. This amount, minus the cost of equipment and apparatus destroyed, will be returned at the end of the session

Books of reference FRIEDENWALD AND RUHRAH, *Diet in Health and Disease*, CARTER, HOWE AND MASON, *Nutrition and Clinical Dietetics*, SHERMAN, *Chemistry of Food and Nutrition*, LUSK, *Science of Nutrition*, HESS, *Principles and Practice of Infant Feeding*, SHERMAN AND SMITH, *The Vitamins*, BAILEY, *Source, Chemistry and Use of Food Products*, SHERMAN, *Food Products*, VULTÉ AND VANDERBILT, *Food Industries*, LEACH, *Food Inspection and Analysis*, WILEY, *Foods and Their Adulteration*, WELD, *Marketing of Farm Products*, MCKILLOP AND ATEINSON, *Economics*, *American Academy of Political and Social Science*, *Cost of Living*, HASKINS, *How to Keep Household Accounts*, SHEAFFER, *Household Accounting*, CAMPBELL, *Household Economics*, RICHARDS, *Cost of Living*, *Cost of Shelter*, RAVENHILL, *Household Administration*, TINKLER AND MASTERS, *Applied Chemistry*, Vol I, WOOLMAN AND MCGOWAN, *Textiles*, MCGOWAN AND WAITE, *Textiles*, DOOLEY, *Textiles*, BALDERSTON, *Laundering*, MARSH, *Laundry Work*, BALDERSTON, *Housewifery*, CLARK, *The Care of a House*, VAN RENSSELAER, ROSE AND CANON, *Manual of Home Making*, MAXWELL AND POPE, *Practical Nursing*, *Government Bulletins*, *Journal of Biological Chemistry*, *Journal of Home Economics*

## RELIGIOUS KNOWLEDGE

S M ADAMS, M A	Trinity College
REV W R R ARMITAGE, M A	Wycliffe College
W T BROWN, M A, Ph D	Victoria College
REV R DAVIDSON, Ph D	Knox College
REV H T F DUCKWORTH, M A	Trinity College
REV ALFRED GANDIER, M A, D D, LL D	Knox College
S H HOOKE, M A, B D	Victoria College
REV B W HORAN, M A, B D	Wycliffe College
REV A J JOHNSTON, B A	Victoria College
REV E A MCINTYRE, M A, B D	Wycliffe College
REV J F McLAUGHLIN, B A, D D	Victoria College
REV J T McNEILL, M A, Ph D	Knox College

RELIGIOUS KNOWLEDGE—*Continued*

REV WILLIAM MANSON, M A	Knox College
REV F D MEADER, B A	St Michael's College
REV S A B MERCER, M A, D D, Ph D	Trinity College
REV J H MICHAEL, M A	Victoria College
REV H C S MORRIS, M A	Trinity College
REV T R O'MEARA, D D, LL D	Wycliffe College
REV C VENN PILCHER, M A, D D	Wycliffe College
REV W A POTTER, M A, B D	Victoria College
REV D M RAMSAY, D D	Knox College
REV N ROCHE	St Michael's College
REV W. ROLLO, M A	Trinity College
REV C A SEAGER, M A, D D	Trinity College
REV W E TAYLOR, M A, Ph D	Wycliffe College
REV F H WALLACE, M A, D D	Victoria College

## FIRST YEAR

- 1a A first course in the English Bible One hour  
 1b A first course in Natural and Revealed Religion One hour  
 1c A first course in the language of the Greek New Testament Three hours  
 1d Oriental Languages 1a, p 207 One hour

## SECOND YEAR

- 2a A second course in the English Bible Two hours  
 2b A second course in Natural and Revealed Religion Two hours  
 2c A second course in the language of the Greek New Testament. Not less than two hours  
 2d. A course in Church History (Victoria) Two hours  
 2e Oriental Languages 2a, p. 207 Two hours

## THIRD YEAR

- 3a A third course in the English Bible Three hours  
 3b A third course in Natural and Revealed Religion Three hours  
 3c. A first course in the Literature and Language of Greek Testament Three hours  
 3d A course in Church History Three hours  
 3e A first course in the History and Philosophy of Religion Three hours  
 3f Oriental Languages 3a, p 207 Three hours

# FOURTH YEAR

- 4a A fourth course in the English Bible Three hours
- 4b A fourth course in Natural and Revealed Religion Three hours
- 4c A second course in the Literature and Language of Greek Testament  
Three hours
- 4d A course in Church History Three hours
- 4e A second course in the History and Philosophy of Religion Three  
hours
- 4f Oriental Languages 4a, p 207 Three hours

# WORLD HISTORY

C T CURRELLEY, M A *Professor of the History of Industrial Art*  
 MISS C G HARCUM, M A , PH D *Assistant Professor of the History of  
 Industrial Art*

Students of the Third and Fourth Years will attend the same lectures  
 and will take either course 1 or course 2

- 1 A course on the History of Art
- 2 A course on the Development of the Mechanical Industries

These courses are to be taken in alternate sessions

# MILITARY STUDIES

W R LANG, D SC , COLONEL (late General Staff, C E F ) *Director*  
 G S CARTWRIGHT, C B , C M G , BRIG - GEN (late R E ), *Special Lecturer*

These courses are options in all Arts courses of the second, third and  
 fourth years respectively Students who have had some military training  
 —C E F , Militia, or Cadet Corps—are admitted

1 This course comprises elementary tactics, topography, musketry,  
 organization and administration, and (in addition to these professional  
 subjects) lectures on citizenship, the relations between the various parts of  
 the Empire with regard to defence, trade-routes, coal and fuel stations,  
 naval power, and the distribution of the Empire's armed forces

2 The professional subjects of course 1 are continued on a more ad-  
 vanced grade, with the addition of Military Hygiene

In addition to the educative nature of the subjects considered in these  
 two courses, they comprise the work necessary for C O T C certificate  
 "A" which qualifies for substantive commissions as Lieutenants of  
 Infantry Candidates completing these and passing the examination pre-  
 scribed by the Imperial Authorities for all O T C 's in the Empire and  
 conducted by the Militia Department are recommended for this certi-  
 ficate

3 This course covers the work required for the higher certificate and involves the study of Organization, Administration, Law, Strategy, and some portion of Military History. Those who complete this course successfully and have had defined military experience are recommended to the Militia Department as candidates for the certificate.

For particulars of the C O T.C., in which the practical portion of these courses is done, see page 159.

# PASS COURSE TIME-TABLE

	MONDAY	TUESDAY	WEDNESDAY
8			
9	1 Latin 2 German 3 Ethics 4 English	1 English 2 Latin 3 Hebrew, Rel Know, Mil Stud 4 Ethics	1 Latin 2 Rel Know, Mil Stud 3 Ethics 4 English
10	1 German 2†French 3 Latin 4 Latin	1 French 2 German 3 English 4 Math I, Chem	1 French 2 English 3 Phys, G & M, H S 4 French
11	1 Mathematics 2 Zool, Bot, Math II, Astronomy 3 Anc & Mod Hist 4 Rel Know, Mil Stud	1 Trig, Rel Know 2 Greek 3 Math I, Chem 4 Hist Phil, Psychol	1 Heb, Ital, Span 2 Chem, Math I 3 Economics 4 Anc & Mod Hist
12	1 Science 2 Greek 3 Hist Phil 4 Math II, Zool, Bot	1 Science 2 Anc & Mod History 3 Math II, Bot, Zool 4 Greek, French	1 Mod History 2 Phys, G & M 3 Anc & Mod Hist 4 Hebrew, Phys, G & M, H S
1			
2	1 French 2†Chemistry, †Astronomy 3†Phys, †G & M, †H S 4 Economics	1 Greek 2†Phys, †G & M 3 Ital, Span 4 Ital, Span	1 Greek 2†Zool, †Bot 3 French 4 German
3	1 Greek 2†Chemistry, †Astronomy 3†Phys, †G & M, †H S 4†Psychol	1 Heb, Ital, Span 2†Phys, †G & M 3 Economics 4†Zool, †Bot	2†Zool, †Bot 3 German 4†Phys, †G & M, †H S
4	1 Economics 2 Philosophy, Psychol 4†Psychol	2 Economics 3 Psychol 4†Zool, †Bot	2 Heb, Ital, Span 3 Greek 4†Phys, †H S
5			

The third and fourth year hours of instruction in the Sciences are subject to change of which due notice will be given to the students concerned

†Hours reserved for Scientific French

# PASS COURSE TIME-TABLE

	THURSDAY	FRIDAY	SATURDAY
8			
9	1 English 2 Latin, G & M 3 Ethics 4 Rel Know, Mil Stud	1 Latin 2 Greek 3 Rel Know 4 English	1 Mod Hist 2 Rel Know, Mil Stud. 3 English 4 French
10	1 Greek 2†French 3 English 4 Anc & Mod Hist	1 German 2 Latin 3 French 4 Ethics	1 Latin 2 English 3 Greek, French 4 German
11	1 Heb, Ital, Span 2 Chem, Math I 3 Phys, G & M, H S 4 Math II, Zool, Bot	1 Mathematics 2 French 3 Latin 4 Latin, Math I, Chem	1 French 2 Heb, Ital, Span 3 German 4 Hebrew, Phys, G & M, H S
12	1 Anc History 2 Zool, Bot, Math II, Astronomy 3 Hist Phil, Zool, Bot, Math II 4 Ital, Span	1 Science 2 Phys 3 Math I, Chem 4 Hist Phil, Psychol	1 German 2 Mod History 3 Hebrew, Mil Stud
1			
2	1 German 2 Economics 3†Chemistry 4†Chemistry	1 Heb, Ital, Span 2 German 3 Ital, Span, Heb 4 Economics	
3	1 Economics 2 Heb, Ital, Span 3†Chem 4†Chemistry	2 Philosophy, Psychol 3†Zool, †Bot, †Psychol * 4 Greek	
4	2 Anc & Mod History 3 Psychol	2 Psychol 3†Zool., †Bot, †Psychol *	
5			

\*An alternate laboratory course may be arranged on another day for students unable to attend this course.

†Laboratory periods

## PRESCRIPTION FOR COURSES

The courses leading to the degree of Bachelor of Arts are

(a) THE PASS COURSE

(b) The following Honour Courses —

CLASSICS	PSYCHOLOGY
GREEK AND HEBREW	MATHEMATICS
ORIENTAL LANGUAGES	MATHEMATICS AND PHYSICS
ORIENTAL LANGUAGES	PHYSICS
(GREEK OPTION)	BIOLOGY
FRENCH GREEK AND LATIN	PHYSIOLOGY AND BIOCHEMISTRY
MODERN LANGUAGES	BIOLOGICAL AND MEDICAL SCIENCES
ENGLISH AND HISTORY	CHEMISTRY AND MINERALOGY
MODERN HISTORY	CHEMISTRY
POLITICAL SCIENCE	GEOLOGY AND MINERALOGY
COMMERCE AND FINANCE	SCIENCE (GENERAL)
PHILOSOPHY	HOUSEHOLD SCIENCE
PHILOSOPHY (ENGLISH OR HISTORY OPTION)	HOUSEHOLD ECONOMICS

The requirements for each of these courses are detailed in the following schedules, where the numerals refer to the corresponding numbers of the courses on the pages indicated. The paging in these schedules is that of the separate Arts Calendar, in each case add 121 to find the corresponding page in this calendar.

### PASS COURSE

#### FIRST YEAR

1	English 1a, 1b, p 89	2 hours
2	Latin 1a, p 83	4 "
3	Mathematics 1a, 1b, p 123	2 "
4	One of Greek 1a or 1b, p 81	4 "
	Hebrew 1b, p 86	4 "
	German 1a, p 92	4 "
	French 1a, p 95	4 "
	Italian 1a or 1c, p 98 or Spanish 1a or 1d, p 99	4 "
5	One of Greek and Roman History 1, p 85	1 "
	Mathematics 1c, p 123	1 "
	Religious Knowledge 1a or 1b or 1c or 1d, p 155	1 "
6	One of a second language from 4	4 "
	French 1b, p 95	2 "
	Mathematics 1d, p 123	3 "
	History 1a, p 100 and Political Economy 1c, p 108	3 "
	Greek and Roman History 1, p 85 and Political Economy 1c, p. 108	3 "
7	General Science 1, p 135	3 "



1 (a) The student who qualifies for admission to the Pass Course under Section 6 (b) or 6 (c) page 13, and who has not obtained credit for at least one subject of the First Year at the Honour Matriculation or equivalent examination, must not take General Science as a subject of the First Year, but such student in the Second Year must take General Science or a science of group 3, as one of his five subjects See section 6, page 162

(b) If such a student, however, should on the results of the examination of the First Year in the Pass Course be admitted to the Second Year of one of the following Honour courses Oriental Languages, Oriental Languages (Greek Option), Modern History, Political Science, Philosophy, he will not be required to take General Science in addition to the work of the Second Year in one of the above Honour Courses

2 Except under special circumstances and on the recommendation of his College, a student of the First Year presenting Honour Matriculation certificates, may not claim exemption in more than three subjects, and so must attend lectures and write examinations in at least four subjects

3 Greek and Roman History 1 may not be chosen under both 5 and 6

4 The course in French 1b or Mathematics 1d is open only to the student who has obtained credit in that subject at the Honour Matriculation or equivalent examination Similar courses in Latin and German may be arranged for, provided a sufficient number of applications are received from students qualified to take such courses

5 A student of Chinese birth and education is permitted to substitute Chinese for Latin in the First and Second Years For such students a special curriculum in Chinese will be prepared

## SECOND YEAR

In selecting the subjects of study in the Second Year the student should have in mind the subjects intended to be taken in the Third and Fourth Years

1 A subject chosen in the Second Year should be continued through the Third and Fourth Years, foreign languages continued from the First Year, viz, Greek, Latin, Hebrew, German, French, Italian, Spanish, as well as English, Ancient History and Philosophy, may be taken in the Second Year without obligation to continue them in the Third and Fourth Years

2 Modern History, Political Economy, Psychology, Mathematics I, Mathematics II, Astronomy, Physics, Zoology, Botany, Chemistry, Geology and Mineralogy, Military Studies, if taken in the Second Year, must be continued throughout the Course

3 Ethics, History of Philosophy and Ancient History may be begun in the Third Year, but if chosen must be continued in the Fourth Year

4 English, Ancient History and Religious Knowledge may be taken in the Third and Fourth Years without having been taken in the Second Year

5 A student who proposes to take Household Science in the Third and Fourth Years is required to take Chemistry in the Second Year and Food Chemistry in the Third and Fourth Years

6 A student who has been debarred from taking General Science in the First Year (see section I, page 161) must take in the Second Year either General Science of the First Year or one of the Sciences (including Mathematics I and Mathematics II) beginning in the Second Year. In the latter case the subject chosen must be continued through the Third and Fourth Years

7. No student may take three foreign languages or three Sciences except by special permission of the Council on the recommendation of his College, but this permission does not carry with it the right to continue the three subjects in the Third and Fourth Years

8 A student of the Second Year who has not previously taken Hebrew may, with the consent of his College and of the Council of the Faculty of Arts, substitute Hebrew of the First Year for a language of the Second Year, on condition that he substitute Hebrew of the Second and Third Years for a language of the Third and Fourth Years respectively

9. The choice of subjects made in the Second Year cannot be varied except on joint action of the College and University authorities

#### PREScription FOR THE SECOND YEAR PASS COURSE

1	One of Greek 2a or 2b, p 81	3 hours
	Latin 2a, p 83	3 "
	Hebrew 2b, p 86	3 "
	Mathematics I Mathematics 2a, 2b, p 123	3 "
	Mathematics II Actuarial Science 1a, p 127	3 "
	Astronomy Physics 32, p 132	4 "
	Physics 9, p 130	4 "
	Zoology 2, p 135	4 "
	Botany 2a, 2b, p 140	4 "
	Chemistry 1, 14, pp 147, 148	4 "
	Geology and Mineralogy Mineralogy 1, 4, 11, pp 151, 152	4 "
2	One of Greek 2a or 2b, p 81	3 "
	Latin 2a, p 83	3 "
	Hebrew 2b, p 86	3 "
	German 2a, p 92	3 "
	French 2a, p 95	3 "
	Italian 2a or 2b, p 98 or Spanish 2a or 2b, p 99	3 "
3	Three of	
	An additional language from 2	3 "
	English 2a, 2b, p 89	2 "
	Greek and Roman History 2a, p 85 or	2 "

SECOND YEAR—*Continued*

History 2a, 2b, p 100	3 hours
Political Economy 2e, p 109	2 "
Philosophy 2a, p 115 or 2e, p 118	3 "
Psychology 2a, 2f, pp 121, 122	3 "
Religious Knowledge 2a or 2b or 2c or 2d or 2e, p 155	2 "
Military Studies 1, p 156	2 "
Not more than two of	
Mathematics I Mathematics 2a, 2b, p 123	3 hours
Mathematics II Actuarial Science 1a, p 127	3 "
Astronomy Physics 32, p 132	4 "
Physics 9, p 130	4 "
Zoology 2, p 135	4 "
Botany 2a, 2b, p 140	4 "
Chemistry 1, 14, pp 147, 148	4 "
Geology and Mineralogy Mineralogy 1, 4, 11, pp 151, 152	4 "
General Science 1, p 135	3 "

## THIRD AND FOURTH YEARS

The plan upon which the work of the Third and Fourth Years is arranged is indicated so that students of the Second Year may make their choice of subjects of that year in such a way as to be able to enter the particular group desired in the higher years with the least possible adjustment

The subjects of the Third and Fourth Years are arranged as follows

(a) Greek, Latin, Hebrew	3 hours
(b) German, French, Italian or Spanish	3 "
(c) English	3 "
(d) Religious Knowledge or Military Studies	3 "
(e) Ancient History or Modern History, Ethics, History of Philosophy, Political Economy, Psychology	3 "
(f) Mathematics (3 hours), Physics, Zoology, Botany, Chemistry, Geology and Mineralogy	4 "
(g) Household Science	4 "

Notes—(a) Five subjects are to be chosen, not more than two from any one group

(b) Not more than three subjects may be chosen from groups (a), (b), (c) and Religious Knowledge 3c, 4c, of (d)

(c) A student of the Third Year who has not previously taken Hebrew may, with the consent of his College and of the Council of the Faculty of Arts, substitute Hebrew of the First Year for a language of the Third Year, on condition that he substitute Hebrew of the Second Year for a language of the Fourth Year

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A student in the Pass Course who is entitled to register in the Third Year is required to submit to the authorities of his College, his selection of subjects for each of the Third and Fourth Years. Registration cannot be completed until the College has formally approved of his selection.

#### PRESCRIPTION FOR THE THIRD YEAR PASS COURSE

Greek 3a, p 81	3 hours
Latin 3a, p 83	3 "
Hebrew 3b, p 86	3 "
English 3a, 3b, p 89	3 "
German 3a, p 92	3 "
French 3a, p 95	3 "
Italian 3a, 3b, p 98	3 "
Spanish 3a or 3d, p 99	3 "
Greek and Roman History 3a, p 85	3 "
History 3a, 3b, p 101	3 "
Political Economy 3e, p 110	3 "
Philosophy 3a, pp 115, 116 or †3h, p 118	3 "
Philosophy 3b, p 116 or †3f or 3g, p 118	3 "
Psychology 3a, 3f, pp 121, 122	3 "
Mathematics I Mathematics 3a, p 123	3 "
Mathematics II Mechanics 3a, p 126	3 "
Astronomy	4 "
Physics 10, p 130	4 "
Zoology 3, pp 135, 136	4 "
Botany 3, p 140	4 "
Chemistry 3, 18, p 148	4 "
Chemistry 3, p 148 and Food Chemistry 5, p 145	4 "
Geology and Mineralogy Geology 3, p 150, Geology 4, p 150 or Mineralogy 6, p 152	4 "
Household Science 3a, p 153	4 "
Religious Knowledge 3a or 3b or 3c or 3d or 3e or 3f, p 155	3 "
Military Studies 2, p 156	3 "

#### PRESCRIPTION FOR THE FOURTH YEAR PASS COURSE

Greek 4a, p 81	3 hours
Latin 4a, p 83	3 "
Hebrew 4b, p 86	3 "
English 4a, 4b, p 90	3 "
German 4a, p 93	3 "
French 4a, pp 95, 96	3 "
Italian 4a, p 98	3 "
Spanish 4a or 4d, p 99	3 "
Greek and Roman History 4a, p 85	3 "

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History 4a, 4b, 4c, p 101	3 hours
Political Economy 4h, p 112	3 "
Philosophy 4a, p 116 or †4i, p 119	3 "
Philosophy 4b, p 116 or †4g or 4h, pp 118, 119	3 "
Psychology 4a, p 122	3 "
Mathematics I Mathematics 4a, 4b, p 124	3 "
Mathematics II Astronomy 2, 3, p 128	3 "
Astronomy	4 "
Physics 11, p 130	4 "
Zoology 4, p 136	4 "
Botany 4, p 140	4 "
Chemistry 2, 28, pp 147-149	4 "
Food Chemistry 6, p 145	4 "
Geology and Mineralogy Geology 13, 5 or 15 and 16, pp 150, 151	4 "
Household Science 4a, p 153	4 "
Religious Knowledge 4a or 4b or 4c or 4d or 4e or 4f, p 156	3 "
Military Studies 3, p 157	3 "

## CLASSICS

## ENTRANCE CONDITIONS

A candidate for admission to the First Year of the Honour Course in Classics must present, in addition to complete Pass Matriculation standing, certificates giving him credit at the Honour Matriculation or an equivalent examination in the following five subjects—Greek, Latin, Mathematics (Algebra and Geometry), together with two additional subjects, one of which should be French or German

A student admitted to this course on probation by special petition, who has not fulfilled all the entrance conditions, must do so at the examination of the First Year See Sections 33-35, p 19

## FIRST YEAR

English 1a, 1b, p 89	2 hours
One of German 1a, p 92	4 "
French 1a, p 95	4 "
One of Mathematics 1c, p 123	1 "
Religious Knowledge 1a or 1b or 1c or 1d, p 155	1 "

(Candidates who are exempt from Science or German as a Pass subject of the First Year may offer this subject in lieu of Religious Knowledge)

*Greek 1c, p 81	5 hours
*Latin 1c, p 84	4½"
*Greek and Roman History 1, p 85	1 "

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## SECOND YEAR

One of English 2a, 2b, p 89	2 hours
German 2a, p 92	3 "
French 2a, p 95	3 "
One of English 2a, 2b, p 89 (if not already chosen)	2 "
History 2a, 2b, p 100	3 "
Religious Knowledge 2a or 2b or 2c or 2d or 2e, p 155	2 "
Military Studies 1, p 156	2 "
*Greek 2c, p 82	5 "
*Latin 2b, p 84	5½ "
*Greek and Roman History 2b, p 85	2 "

## THIRD YEAR

One of Greek 3h, p 82 and Latin 3f, p 84	1 hour
Religious Knowledge 3a or 3b or 3c or 3d or 3e or 3f, p 155	3 hours
Military Studies 2, p 156	3 "
*Greek 3b, p 82	7 "
*Latin 3b, p 84	6 "
*Greek and Roman History 3b, 3c, p 85	1 "

## FOURTH YEAR

One of Greek 4h, p 83 and Latin 4c, p 85	1 hour
Religious Knowledge 4a or 4b or 4c or 4d or 4e or 4f, p 156	3 hours
Military Studies 3, p 157	3 "
*Greek 4b, p 83	7 "
*Latin 4b, p 84	5 "
*Greek and Roman History 4b, 4c, 4d, p 85	2 "

## GREEK AND HEBREW

## ENTRANCE CONDITIONS

A candidate for admission to the First Year of the Honour Course in Greek and Hebrew must present, in addition to complete Pass Matriculation standing, certificates giving him credit at the Honour Matriculation or an equivalent examination in the following five subjects—Greek, Latin, Mathematics (Algebra and Geometry), one of English, French, German, together with an additional subject

A student admitted to this course on probation by special petition, who has not fulfilled all the entrance conditions, must do so at the examination of the First Year See Sections 33-35, p 19

## FIRST YEAR

English 1a, 1b, p 89	2 hours
One of Mathematics 1c, p 123	1 "
Religious Knowledge 1a or 1b or 1c or 1d, p 155	1 "
*Greek 1e, p 82	5 "
*Greek and Roman History 1, p 85	1 "
*Oriental Languages 1b, p 86	4 "

## SECOND YEAR

One of English 2a, 2b, p 89	2 hours
Philosophy 2a, p 115 or †2e, p 118	3 "
Religious Knowledge 2a or 2b or 2c or 2d or 2e, p 155	2 "
Military Studies 1, p 156	2 "
One of Latin 2a, p 83	3 "
German 2a, p 92	3 "
French 2a, p 95	3 "
*Greek 2c, 2g, p 82	3½"
*Greek and Roman History 2a, p 85	2 "
*Oriental Languages 2c, 2d, 2g, p 87	6 "

## THIRD YEAR

Greek and Roman History 3a, p 85	3 hours
One of English 3a, 3b, p 89	3 "
Philosophy 3a, pp 115, 116 or †3h, p 118	3 "
Philosophy 3b, p 116 or †3f or 3g, p 118	3 "
Religious Knowledge 3a or 3b or 3c or 3d or 3e or 3f, p 155	3 "
Military Studies 2, p 156	3 "
*Greek 3e, 3g, p 82	5 "
*Oriental Languages 3c, 3d, 3g, p 87	6 "

## FOURTH YEAR

Greek and Roman History 4a, p 85	3 hours
One of English 4a, 4b, p 90	3 "
Philosophy 4a, p 116 or †4i, p. 119	3 "
Philosophy 4b, p 116 or †4g or 4h, pp 118, 119	3 "
Religious Knowledge 4a or 4b or 4c or 4d or 4e or 4f, p 156	3 "
Military Studies 3, p 157	3 "
*Greek 4e, 4g, p 83	5 "
*Oriental Languages 4c, 4d, 4g, pp 87, 88	5 "

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## ORIENTAL LANGUAGES

## ENTRANCE CONDITIONS

Every student applying to enter the Honour Course in Oriental Languages at the beginning of the Second Year must obtain at the examination of the First Year in the Pass Course an average of at least 60 per cent in the subjects which he is required to take, with not less than 66 per cent in Hebrew. It is recommended that the optional language be either Greek or German.

It is possible however to transfer from any other Honour Course at the beginning of the Second Year, provided the candidate has obtained not less than 66 per cent in Hebrew.

## FIRST YEAR

1 English 1a, 1b, p 89	2 hours
2 Latin 1a, p 83	4 "
3 Mathematics 1a, 1b, p 123	2 "
4 Hebrew 1b, p 86	4 "
5 One of Greek and Roman History 1, p 85	1 "
Mathematics 1c, p 123	1 "
§ Religious Knowledge 1a or 1b or 1c or 1d, p 155	1 "
6 One of Greek 1a or 1b, p 81	4 "
German 1a, p 92	4 "
French 1a, p 95	4 "
French 1b, p 95	2 "
Mathematics 1d, p 123	3 "
History 1a, p 100 and Political Economy 1c, p 108	3 "
Greek and Roman History 1, p 85 and Political Economy 1c, p 108	3 "
7 General Science 1, p 135	3 "

§ Students in this Course, who have not taken Greek previously, and who do not take Greek 1b, 2b, etc., are advised to take Religious Knowledge 1c, and the similar Courses in the subsequent years.

Attention is drawn to Sections 1, 2, 3 and 4, page 161, which apply also to the First Year of this course.

## SECOND YEAR

English 2a, 2b, p 89	2 hours
One of Greek 2a or 2b, p 81	3 "
Latin 2a, p 83	3 "
German 2a, p 92	3 "
French 2a, p 95	3 "
History 2a, 2b, p 100	3 "
Greek and Roman History 2a, p 85	2 "
Philosophy 2a, p 115 or 12e, p 118	3 "
Religious Knowledge 2a or 2b or 2c or 2d or 2e, p 155	2 "
Military Studies 1, p 156	2 "
*Oriental Languages 2c, 2d, 2e, 2f, 2g, p 87	10 "



## THIRD YEAR

Two of English 3a, 3b, p 89	3 hours
Greek and Roman History 3a, p 85	3 "
History 3a, 3b, p 101	3 "
Philosophy 3a, pp 115, 116 <i>or</i> †3h, p 118, <i>or</i>	3 "
Philosophy 3b, p 116 <i>or</i> †3f <i>or</i> 3g, p 118	3 "
Religious Knowledge 3a <i>or</i> 3b <i>or</i> 3c <i>or</i> 3d <i>or</i> 3e <i>or</i> 3f, p 155	3 "
Military Studies 2, p 156	3 "
One of Greek 3a, p 81 <i>or</i> 3g, p 82	3 "
Latin 3a, p 83	3 "
German 3a, p. 92	3 "
French 3a, p 95	3 "
*Oriental Languages 3c, 3d, 3e, 3f, 3g, p 87	9 "
*Oriental Languages, one of 3h, 3i, 3j, p 87	2 "

## FOURTH YEAR

Two of English 4a, 4b, p 90	3 hours
Greek and Roman History 4a, p 85	3 "
History 4a, 4b, 4c, pp 101	3 "
Philosophy 4a, p 116 <i>or</i> †4i, p 119, <i>or</i>	3 "
Philosophy 4b, p 116 <i>or</i> †4g <i>or</i> 4h, pp 118, 119	3 "
Religious Knowledge 4a <i>or</i> 4b <i>or</i> 4c <i>or</i> 4d <i>or</i> 4e <i>or</i> 4f, p 156	3 "
Military Studies 3, p 157	3 "
One of Greek 4a, p 81 <i>or</i> 4g, p 83	3 "
Latin 4a, p 83	3 "
German 4a, pp 93	3 "
French 4a, pp 95, 96	3 "
*Oriental Languages 4c, 4d, 4e, 4f, 4g, pp 87, 88	7 "
‡*Oriental Languages, one of 4h, 4i, 4j, p 88	2 "

‡Students must continue the course selected in the Third Year

Every candidate in this course shall, during the Fourth Year, present a dissertation on some subject connected with Oriental Languages or Literature, such subject to be previously approved by his instructors in the department. The essay will, on or before the 1st of April in each year, be laid before the instructors in Oriental Languages in University College, Victoria College and Trinity College, who will examine it and assign to it marks according to their judgment of its merit. Such marks will be reported to the Registrar and be taken into account by the examiners in determining the standing of the candidate at the examination of the Fourth Year.

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## ORIENTAL LANGUAGES—GREEK OPTION

## ENTRANCE CONDITIONS

Every student applying to enter the Honour Course in Oriental Languages with Greek Option, at the beginning of the Second Year, must obtain at the examination of the First Year in the Pass Course, an average of at least 60 per cent in the subjects which he is required to take, with not less than 66 per cent in Greek and Hebrew

Candidates may begin the study of Greek in the First Year under the beginner's course Greek 1b, 2b

## FIRST YEAR

English 1a, 1b, p 89	2 hours
Latin 1a, p 83	4 "
Mathematics 1a, 1b, p 123	2 "
Greek 1a or 1b, p 81	4 "
Oriental Languages 1b, p 86	4 "
One of Greek and Roman History 1, p 85	1 "
Mathematics 1c, p 123	1 "
Religious Knowledge 1a or 1b or 1c or 1d, p 155	1 "
General Science 1, p 135	3 "

Attention is drawn to sections 1 and 2, page 161, which applies also to the First Year of this course

## SECOND YEAR

Greek and Roman History 2a, p 85	2 hours
One of Latin 2a, p 83	3 "
German 2a, p 92	3 "
French 2a, p 95	3 "
One of English 2a, 2b, p 89	2 "
History 2a, 2b, p 100	3 "
Philosophy 2a, p 115 or †2e, p 118	3 "
Religious Knowledge 2a or 2b or 2c or 2d or 2e, p 155	2 "
Military Studies 1, p 156	2 "
‡Greek 2a or 2b, 2g, pp 81, 82	4 "
*Oriental Languages 2c, 2d, 2g, p 87	6 "

‡Not less than 66% must be obtained in Greek

## THIRD YEAR

Greek and Roman History 3a, p 85	3 hours
One of English 3a, 3b, p 89	3 "
Philosophy 3a, pp 115, 116 or †3h, p 118	3 "
Philosophy 3b, p 116 or †3f or 3g, p 118	3 "
Religious Knowledge 3a or 3b or 3c or 3d or 3e or 3f, p 155	3 "
Military Studies 2, p 156	3 "
*Greek 3e, 3g, p 82	5 "
*Oriental Languages 3c, 3d, 3g, p 87	5 "

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## FOURTH YEAR

Greek and Roman History 4a, p 85	3 hours
One of English 4a, 4b, p 90	3 "
Philosophy 4a, p 116 or †4i, p 119	3 "
Philosophy 4b, p 116 or †4g or 4h, pp 118, 119	3 "
Religious Knowledge 4a or 4b or 4c or 4d or 4e or 4f, p 156	3 "
Military Studies 3, p 157	3 "
*Greek 4e, 4g, p 83	5 "
*Oriental Languages 4c, 4d, 4g, pp 87, 88	4 "

## FRENCH GREEK AND LATIN

## ENTRANCE CONDITIONS

A candidate for admission to the First Year of the Honour Course in French Greek and Latin, must present, in addition to complete Pass Matriculation standing, certificates giving him credit at the Honour Matriculation or an equivalent examination in the following five subjects—Latin, Mathematics (Algebra and Geometry), two of Greek, English, French, together with an additional subject

A student admitted to this course on probation by special petition, who has not fulfilled all the entrance conditions, must do so at the examination of the First Year See Sections 33-35, p 19

In each year of the Course, French, Greek and Latin are to be taken, two as honour subjects, the third as a pass subject Candidates taking Greek as their pass subject, may begin the study of Greek in their First Year under the beginner's course, Greek 1b, 2b

## FIRST YEAR

One of Mathematics 1c, p 123	1 hour
Religious Knowledge 1a or 1b or 1c or 1d, p 156	1 "
(Candidates who are exempt from Science or German as a Pass subject of the First Year may offer this subject in lieu of Religious Knowledge )	
One of Greek 1a or 1b, p 81	4 hours
Latin 1a, p 83	4 "
French 1a, p 95	4 "
Two of *Greek 1f, p 82	5 "
*Latin 1e, p 84	5 "
*French 1g, 1h, 1i, pp 96, 97	5 "
*English 1a, 1d, p 90	2 "
*Greek and Roman History 1, p 85	1 "

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SECOND YEAR

One of English 2a, 2b, p 89	2 hours
Religious Knowledge 2a or 2b or 2c or 2d or 2e, p 155	2 "
Military Studies 1, p 156	2 "
One of Greek 2a or 2b, p 81	3 "
Latin 2a, p 83	3 "
French 2a, p 95	3 "
Two of *Greek 2f, p 82	4½"
*Latin 2d, p 84	4½"
*French 2f, 2g, 2h, p 97	4½"
One of *Greek and Roman History 2b, p 85	1 "
*Phonetics, p 100	1 "

THIRD YEAR

One of English 3b, p 89	3 hours
French 3g, p 97	2 "
Religious Knowledge 3a or 3b or 3c or 3d or 3e or 3f, p 155	3 "
Military Studies 2, p 156	3 "
One of Greek 3a, p 81	3 "
Latin 3a, p 83	3 "
French 3a, p 95	3 "
Two of *Greek 3f, p 82	6 "
*Latin 3e, p 84	5 "
*French 3c, 3d, 3e, 3f, p 97	5 "

FOURTH YEAR

One of English 4b, p 90	3 hours
French, 4g, p 97	2 "
Religious Knowledge 4a or 4b or 4c or 4d or 4e or 4f, p 156	3 "
Military Studies 3, p 157	3 "
One of Greek 4a, p 81	3 "
Latin 4a, p 83	3 "
French 4a, pp 95, 96	3 "
Two of *Greek 4f, p 83	6 "
*Latin, 4d, p 85	5 "
*French 4c, 4d, 4e, 4f, p 97	5 "

MODERN LANGUAGES

ENTRANCE CONDITIONS

A candidate for admission to the First Year of the Honour Course in Modern Languages must present, in addition to complete Pass Matriculation standing, certificates giving him credit at the Honour Matriculation or an equivalent examination in the following five subjects—Latin, French, Mathematics (Algebra and Geometry), one of German, Italian, Spanish, together with an additional subject

\*Honours

A student admitted to this course on probation by special petition, who has not fulfilled all the entrance conditions, must do so at the examination of the First Year See Sections 33-35, p 19

In determining the standing of candidates in English, French, German, Italian and Spanish, examiners will take into account the report of the instructors in the University and Colleges in these subjects

### FIRST YEAR

One of Mathematics 1c, p 123	1 hour
General Science 1, p 135	3 hours
Religious Knowledge 1a or 1b or 1c or 1d, p 155	1 "
Three of *English 1a, 1c, 1d, p 90	3 "
*German 1c, 1d, 1e, 1h, p 93	5 "
*French 1g, 1h, 1i, pp 96, 97	5 "
*Italian 1a or 1c, 1b, p 98	4½"
*Spanish 1a or 1d, 1b, p 99	4½"

Note—Not more than one new language may be begun in this First Year

### SECOND YEAR

One of Philosophy 2a, p 115 or †2e, p 118	3 hours
Religious Knowledge 2a or 2b or 2c or 2d or 2e, p 155	2 "
Military Studies 1, p 156	2 "
Three of *English 2a, 2b, 2c, p. 90	4 "
*German 2c, 2d, 2e, p 93	4 "
*French 2f, 2g, 2h, p 97	4 "
*Italian 2a or 2b, p 98	3 "
*Spanish 2a or 2b, p 99	3 "
*Phonetics, p 100	1 "

### THIRD YEAR

§One of German 3e, p 93	2 hours
French 3g, p 97	2 "
Italian 3d, p 98	2 "
Spanish 3c, p 99	2 "
Philosophy 3b, p 116 or †3f or 3g, p 118	3 "
Religious Knowledge 3a or 3b or 3c or 3d or 3e or 3f, p 155	3 "
Military Studies 2, p 156	3 "
Two of *English 3a, 3b, 3c, pp 90, 91	5 "
*German 3b, 3c, 3d, p 93	5 "
*French 3c, 3d, 3e, 3f, p 97	5 "
*Italian 3a, 3b, 3c, p 98	5 "
*Spanish 3a and 3b, or 3d, p 99	5 "

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## FOURTH YEAR

§One of German 4g, p 94	2 hours
French 4g, p 97	2 "
Italian 4c, p 98	2 "
Spanish 4c, p 99	2 "
Philosophy 4b, p 116 or †4g or 4h, pp 118, 119	3 "
Religious Knowledge 4a or 4b or 4c or 4d or 4e or 4f, p 156	3 "
Military Studies 3, p 157	3 "
Two of *English 4a, 4c, 4b or 4e, pp 91, 92	5 "
*German 4b, 4c, 4d, 4e, pp 93, 94	5 "
*French 4c, 4d, 4e, 4f, p 97	5 "
*Italian 4a, 4b, p 98	5 "
*Spanish 4a and 4b, or 4d, p 99	5 "

§Students in the *Third Year* selecting German 3e or French 3g or Italian 3d or Spanish 3c, and students in the *Fourth Year* selecting German 4g or French 4g or Italian 4c or Spanish 4c, must choose one of the languages in which they are taking honours

## ENGLISH AND HISTORY

## ENTRANCE CONDITIONS

A candidate for admission to the First Year of the Honour Course in English and History must present, in addition to complete Pass Matriculation standing, certificates giving him credit at the Honour Matriculation or an equivalent examination in the following five subjects—Latin, Mathematics (Algebra and Geometry), two of Greek, English, French, German, together with an additional subject

A student admitted to this course on probation by special petition, who has not fulfilled all the entrance conditions, must do so at the examination of the First Year See Sections 33-35, p 19

## FIRST YEAR

One of Mathematics 1c, p 123	1 hour
General Science 1, p 135	3 "
Religious Knowledge 1a or 1b or 1c or 1d, p 155	1 "

(Candidates who have qualified for entrance into this course by obtaining Honour Matriculation standing in three foreign languages may offer one of these languages in lieu of Religious Knowledge )

*English 1a, 1c, 1d, p 90	3 hours
*History 1c, p 101	2 "
*Greek and Roman History 1, p 85	1 "
Two of *Greek 1d, p 82	4 "
*Latin 1d, p 84	4 "
*German 1c, 1d, 1e, p 93	4½"
*French 1g, 1i, pp 96, 97	4½"

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\**Honours*

## SECOND YEAR

One of Political Economy 2d, pp 108, 109	1 hour
Religious Knowledge 2a or 2b or 2c or 2d or 2e, p 155	2 hours
Military Studies 1, p 156	2 "
*English 2a, 2b, 2c, p 90	4 "
*History 2d, 2e, p 102	3 "
Two of *Greek 2d, p 82	3 "
*Latin 2c, p 84	3 "
*German 2c, 2e, p 93	3 "
*French 2f, 2g, p 97	3 "

## THIRD YEAR

One of Philosophy 3b, p 116 or †3f or 3g, p 118	3 hours
Religious Knowledge 3a or 3b or 3c or 3d or 3e or 3f, p 155	3 "
Military Studies 2, p 156	3 "
*English 3a, 3d, 3e, pp 90, 91	5 "
*History 3d, p 104	1 "
One of *Greek 3c, p 82	2 "
*Latin 3c, p 84	2 "
*German 3b, p 93	3 "
*French 3c, p 97	2 "
One of *English 3c, p 91	2 "
*History 3c, p 103	2 "
*Greek 3d, p 82 and *History 3f, p 104	2 "
*Latin 3d, p 84 and *History 3f, p 104	2 "

## FOURTH YEAR

One of Philosophy 4b, p 116 or †4g or 4h, pp 118, 119	3 hours
Religious Knowledge 4a or 4b or 4c or 4d or 4e or 4f, p 156	3 "
Military Studies 3, p 157	3 "
*Greek 4c, p 83 (Aristotle's Poetics, in English)	1 "
*English 4a, 4b, 4d, 4e, pp 91, 92	7 "
*History 4e, p 105	1 "
One of *English 4c, p 91	2 "
*History 4d, pp 104, 105	2 "
*Greek 4d, p 83 and *History 4h, p 105	2 "
*Latin 4c, p 85 and *History 4h, p 105	2 "

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\*Honours

## MODERN HISTORY

## ENTRANCE CONDITIONS

A candidate for admission to the First Year of the Honour Course in Modern History must present, in addition to complete Pass Matriculation standing, certificates giving him credit at the Honour Matriculation or an equivalent examination in the following five subjects—Latin, Mathematics (Algebra and Geometry), History, French or German, together with an additional subject

A student admitted to this course on probation by special petition, who has not fulfilled all the entrance conditions, must do so at the examination of the First Year. See Sections 33-35, p 19

A student who has obtained complete standing at the examination of the First Year in the Pass Course with an average of 66 per cent in at least four subjects, may enter the Second Year of the Honour Course in Modern History

The entrance conditions and the First Year Course in Modern History are the same as those required for the Political Science Course. A student may thus choose at the end of his First Year whether he will proceed in the Modern History Course or in the Political Science Course

## FIRST YEAR

One of Greek and Roman History 1, p 85	2 hours
Mathematics 1j, p 124	2 "
One of Mathematics 1c, p 123	1 "
Religious Knowledge 1a or 1b or 1c or 1d, p 155	1 "
*English 1a, 1b, p 89	2 "
One of *Latin 1d, p 84	4 "
*German 1c, 1d, p 93	4 "
*French 1g, p 96	4 "
*Italian 1a or 1c, p 98	4 "
*Spanish 1a or 1d, p 99	4 "
*History 1c, 1d, p 101	3 "
*Political Economy 1a, 1b, p 107	4 "

## SECOND YEAR

One of History 2h, p 103	2 hours
Religious Knowledge 2a or 2b or 2c or 2d or 2e, p 155	2 "
Military Studies 1, p 156	2 "
*English 2a, 2b, 2c, p 90	4 "
*History 2c or 2d, 2e, 2f, pp 102, 103	5 "
*Political Economy 2a, p 108	3 "

\*Honours



## THIRD YEAR

One of English 3a, 3b, p 89	3 hours
Religious Knowledge 3a or 3b or 3c or 3d or 3e or 3f, p 155	3 "
Military Studies 2, p 156	3 "
*History 3c, 3d, 3e, 3f, pp 103, 104	7 "
One of *English 3d, p 91	2 "
*History 3g, p 104	2 "

## FOURTH YEAR

One of English 4a, 4b, p 90	3 hours
Religious Knowledge 4a or 4b or 4c or 4d or 4e or 4f, p 156	3 "
Military Studies 3, p 157	3 "
*History 4d, 4e, 4f, 4g, 4h, pp 104, 105	6 "
One of *English 4d, p 91	2 "
*History 4i, p 105	2 "
*Political Economy 2b, p 108	3 "

## POLITICAL SCIENCE

## ENTRANCE CONDITIONS

A candidate for admission to the First Year of the Honour Course in Political Science must present, in addition to complete Pass Matriculation standing, certificates giving him credit at the Honour Matriculation or an equivalent examination in the following five subjects—Latin, Mathematics (Algebra and Geometry), History, French or German, together with an additional subject

A student admitted to this course on probation by special petition, who has not fulfilled all the entrance conditions, must do so at the examination of the First Year. See Sections 33-35, p 19

A student who has obtained complete standing at the examination of the First Year in the Pass Course with an average of 66 per cent in at least four subjects, may enter the Second Year of this Honour Course

The entrance conditions and the First Year course in Political Science are the same as those required for the Modern History course. A student may thus choose at the end of his First Year whether he will proceed in the Political Science course or in the Modern History course

## FIRST YEAR

One of Greek and Roman History 1, p 85	2 hours
Mathematics 1j, p 124	2 "
One of Mathematics 1c, p 123	1 "
Religious Knowledge 1a or 1b or 1c or 1d, p 155	1 "
*English 1a, 1b, p 89	2 "

\*Honours

FIRST YEAR—*Continued*

One of *Latin 1d, p 84	4 hours
*German 1c, 1d, p 93	4 "
*French 1g, p 96	4 "
*Italian 1a or 1c, p 98	4 "
*Spanish 1a or 1d, p 99	4 "
*History 1c, 1d, p 101	3 "
*Political Economy 1a, 1b, p 107	4 "

## SECOND YEAR

One of Philosophy 2a, p 115 or †2e, p 118	3 hours
Mathematics 2h, p 126	2 "
Religious Knowledge 2a or 2b or 2c or 2d or 2e, p 155	2 "
Military Studies 1, p 156	2 "
*History 2g, p 103	2 "
*Political Economy 2a, 2b, 2c, p 108	9 "

## DIVISION I—THIRD YEAR—POLITICS AND LAW

One of Philosophy 3a or 3e, pp 115-117 or †4i, p 119	3 hours
Mathematics, 3i, p 123	3 "
Religious Knowledge 3a or 3b or 3c or 3d or 3e or 3f, p. 155	3 "
Military Studies 2, p 156	3 "
*History 2f, 3e, pp 103, 104	4 "
*Political Economy 3a or 3d, pp 109, 110	3 "
*Law 3a, 3b, 3c, 3d, pp 112, 113	5 "

## DIVISION I—FOURTH YEAR—POLITICS AND LAW

One of Philosophy 4a, p 116 or †4o, p 121	3 hours
Mathematics, 4m, p 124	3 "
Religious Knowledge 4a or 4b or 4c or 4d or 4e or 4f, p 156	3 "
Military Studies 3, p 157	3 "
*History 4f, p 105	1 "
*Economics 4e, p 111	2 "
*Law 4a, 4b, 4c, 4d, pp 113, 114	6 "
*Economics 4b or 4c or 4f, pp 110, 111	3 "

## DIVISION II—THIRD YEAR—ECONOMICS

One of Philosophy 3a or 3e, pp 115-117 or †4i, p 119	3 hours
Mathematics, 3i, p 123	3 "
Religious Knowledge 3a or 3b or 3c or 3d or 3e or 3f, p 155	3 "
Military Studies 2, p 156	3 "
*Economics 3a, 3b, 3c, 3d, pp 109, 110	12 "

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## DIVISION II—FOURTH YEAR—ECONOMICS

One of Philosophy 4a, p 116 or †4o, p 121	3 hours
Mathematics, 4m, p 124	3 "
Religious Knowledge 4a or 4b or 4c or 4d or 4e or 4f, p 156	3 "
Military Studies 3, p 157	3 "
*Economics 2b, 4e, 4i, pp 108-112	7 "
Two of *Economics 4b, p 111, 4c, p 111, 4f, pp 111, 112	4 "

## COMMERCE AND FINANCE

The course in Commerce and Finance and the Course in Commerce have been amalgamated. The new course, called hereafter Commerce and Finance, leads only to the Bachelor of Commerce degree. Consequently the Arts course of Commerce and Finance will cease to exist after the session 1925-1926.

## THIRD YEAR

English 3a, 3b, p 89	3 hours
One of Latin 3a, p 83	3 "
German 3a, p 92	3 "
French 3a, p 95	3 "
Physics 10, p 130	4 "
Chemistry 3, 15, p 148	6 "
Geology and Mineralogy Geology 3, p 150, Geology 4, p 150 or Mineralogy 6, p 152	4 "
One of History 3a, 3b, p 101	3 "
Philosophy 3a, pp 115, 116 or †3h, p 118	3 "
Religious Knowledge 3a or 3b or 3c or 3d or 3e or 3f, p 155	3 "
World History 1 or 2, p 156	2 "
Military Studies 2, p 156	3 "
*Political Economy 2b, 3a, pp 108, 109	4 "
One of *Political Economy 3b or 3c, pp 109, 110	2 "
*Actuarial Science 3a, p 124	2 "

## FOURTH YEAR

English 4a, 4b, p 90	3 hours
One of Latin 4a, p 83	3 "
German 4a, p 93	3 "
French 4a, pp 95, 96	3 "
Physics 11, p 130	4 "
Chemistry 7, 8, 25, pp 148, 149	6 "
Geology and Mineralogy Geology 13, 5 or 15 and 16, pp 150, 151	4 "

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\**Honours*

FOURTH YEAR—*Continued*

One of History 4a, 4b, 4c, p 101	3 hours
Religious Knowledge 4a or 4b or 4c or 4d or 4e or 4f, p 156	3 "
World History 1 or 2, p 156	2 "
Military Studies 3, p 157	3 "
*Political Economy 2b, p 108	2 "
*Law 4e, pp 114, 115	1 "
Two of *Political Economy 4b, p 111, 4c, pp 111, 3d, p 110, 4e, p 111, 4f, p 112, *Actuarial Science 4a, p 124	4 "

## PHILOSOPHY

## ENTRANCE CONDITIONS

A candidate for admission to the First Year of the Honour Course in Philosophy must present, in addition to complete Pass Matriculation standing, certificates giving him credit at the Honour Matriculation or an equivalent examination in the following five subjects—Latin, English, Mathematics (Algebra and Geometry), one of History, Greek, French, German, Physics, together with an additional subject

A student admitted to this course on probation by special petition, who has not fulfilled all the entrance requirements, must do so at the examination of the First Year See Sections 33-35, p 19

A student who has obtained complete standing at the examination of the First Year in the Pass Course with an average of 66 per cent in at least four subjects may enter the Second Year of the Honour Course in Philosophy

## FIRST YEAR

General Science I, p 135	3 hours
One of Mathematics 1c, p 123	1 "
Religious Knowledge 1a or 1b or 1c or 1d, p 155	1 "
One of *Greek 1g, p 82	4 "
*Latin 1d, p 84	4 "
*Hebrew 1b, p 86	4 "
*German 1c, 1d, p 93	4 "
*French 1g, p 96	4 "
*Greek and Roman History 1, p 85	1 "
*English 1a, 1b, p 89	2 "
*Philosophy 1a, p 116 or †1b, p 119	2 "

## SECOND YEAR

English 2a, 2b, p 89	2 hours
One of Greek 2a or 2b, p 81	3 "
Greek and Roman History 2a, p 85	2 "
Hebrew 2b, p 86	3 "

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SECOND YEAR—*Continued*

History 2a, 2b, p 100	3 hours
Philosophy 5, p 118	2 "
Religious Knowledge 2a or 2b or 2c or 2d or 2e, p 155	2 "
Military Studies 1, p 156	2 "
*Philosophy 2b, 2c, 2d, pp 116, 117 or †2f, 2g, 2h, 2i, 2j, p 119	5 "
*Psychology 2d, 2f, 2h, p 122 or †*Philosophy 2j, 2k, p 119	3 "

## THIRD YEAR

One of English 3a, 3b, p 89	3 hours
Greek 3a, p 81	3 "
Hebrew 3b, p 86	3 "
Philosophy 5, p 118	2 "
Religious Knowledge 3a or 3b or 3c or 3d or 3e or 3f, p 155	3 "
Military Studies 2, p 156	3 "
Political Economy 3f, p 110	2 "
*Philosophy 3c, 3d, 3e, p 117 and *Psychology 3c, 3g, p 122, or	9 "
*†Philosophy 3i, 3j, 3k, 3l, 3m, 3n, 3o, p 120 and	10 "
*†Psychology 1, p 121	1 "

## FOURTH YEAR

One of English 4a, 4b, p 90	3 hours
Greek 4a, p 81	3 "
Hebrew 4b, p 86	3 "
Political Economy 4e, p 111	2 "
Philosophy 5, p 118	2 "
Religious Knowledge 4a or 4b or 4c or 4d or 4e or 4f, p 156	3 "
Military Studies 3, p 157	3 "
*Philosophy 4c, 4d, 4e, 4f, 4g, pp 117, 118 and *Psychology 4b, p 122, or	11 "
*†Philosophy 4j, 4k, 4l, 4m, 4n, 4o, 4p, 4q, 4r, pp 120, 121	11 "

## PHILOSOPHY (ENGLISH OR HISTORY OPTION)

## ENTRANCE CONDITIONS

A candidate for admission to the First Year of the Honour Course in Philosophy (English or History Option) must present, in addition to complete Pass Matriculation standing, certificates giving him credit at the Honour Matriculation or an equivalent examination in the following five subjects—Latin, Mathematics (Algebra and Geometry), one of History, English, Physics, one of Greek, French, German, together with an additional subject

A student admitted to this course on probation by special petition, who has not fulfilled all the entrance requirements, must do so at the examination of the First Year See Sections 33-35, p 19

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\**Honours*

## FIRST YEAR

General Science 1, p 135	3 hours
One of Mathematics 1c, p 123	1 "
Religious Knowledge 1a or 1b or 1c or 1d, p 155	1 "
One of *Greek 1g, p 82	4 "
*Latin 1d, p 84	4½ "
*Hebrew 1b, p 86	4 "
*German 1c, 1d, p 93	4 "
*French 1g, p 96	4 "
*Greek and Roman History 1, p 85	1 "
*English 1a, 1c, 1d, p 90	3 "
*History 1c, p 101	2 "
*Philosophy 1a, p 116 or †1b, p 119	2 "

## SECOND YEAR

Political Economy 2d, pp 108, 109	1 hour
One of Philosophy 5, p 118	2 "
Religious Knowledge 2a or 2b or 2c or 2d or 2e, p 155	2 "
Military Studies 1, p 156	2 "
*English 2a, 2b, 2c, p 90	4 "
*History 2d, 2e, p 102	4 "
*Philosophy 2c, 2d, p 117, or †2f, 2g, 2h, p 119	3 "
*Psychology 2d, 2f, p 122 or *†Philosophy 2l, p 119	3 "

## THIRD YEAR

One of Philosophy 5, p 118	3 hours
Psychology 3a, 3f, pp 121, 122 or †Philosophy 3l, p 120	3 "
Religious Knowledge 3a or 3b or 3c or 3d or 3e or 3f, p 155	3 "
Military Studies 2, p 156	3 "
One of *English 3d, 3e, p 91	5 "
*History 3c, 3d, p 103, 104	4 "
*Philosophy 3c, 3d, 3e, p 117 or †3i, 3j, 3m, 3o, p 120	6 "

## FOURTH YEAR

One of Political Economy 4e, p 111	2 hours
Philosophy 5, p 118	3 "
Psychology 4a, p 122 or †Philosophy 4m, 4n, p 120	3 "
Religious Knowledge 4a or 4b or 4c or 4d or 4e or 4f, p 156	3 "
Military Studies 3, p 157	3 "
One of *English 4b, 4d, p 91	5 "
*History 4d, 4e, pp 104, 105	3 "
*Philosophy 4c, 4e or 4g, pp 117, 118 or †4j, 4k, 4l, 4o, 4p, pp 120, 121	4 "

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## PSYCHOLOGY

The Entrance Conditions and the First Year prescription of this course will be found under the course in Science, page 187

## SECOND YEAR

English 2a, 2b, p 89	2 hours
One of German 2b, p 92	2 "
French 2b, p 95	2 "
One of Political Economy 2d, pp 108, 109	1 "
Religious Knowledge 2a or 2b or 2c or 2d or 2e, p 155	2 "
Military Studies 1, p 156	2 "
*Philosophy 2c, p 117	1 "
*Psychology 2d, 2f, 2g, p 122	4 "
*Mathematics 1k, 1l, p 126	2 "
*Physics 3b, 4, 5, 6 part, pp 129, 130	5 "
*Zoology 7 part, p 136	4 "

## THIRD YEAR

A reading knowledge of French and German for scientific purposes	
Two of Mathematics	3 hours
Political Economy	3 "
Religious Knowledge	3 "
Military Studies	3 "
*Philosophy	2 "
*Psychology	8 "
*Anatomy of the Special Senses	4 "
*Physiology	4 "

## FOURTH YEAR

A reading knowledge of French and German for scientific purposes	
One of Political Economy	3 hours
Religious Knowledge	3 "
Military Studies	3 "
*Philosophy	2 "
*Psychology	14 "
*Zoology	2 "

## MATHEMATICS

## ENTRANCE CONDITIONS

A candidate for admission to the First Year of the Honour Course in Mathematics must present, in addition to complete Pass Matriculation standing, certificates giving him credit at the Honour Matriculation or an equivalent examination in the following five subjects—Latin, Mathematics (Algebra and Geometry, Trigonometry), Physics, and French or German

*\*Honours*

It is recommended that French be taken at Matriculation, but it is to be kept in mind that a reading knowledge of both German and French will be necessary in the Third and Fourth Years

A student admitted to this course on probation by special petition, who has not fulfilled all the entrance conditions, must do so at the examination of the First Year See Sections 33-35, p 19

# FIRST YEAR

English 1a, 1b, p 89	2 hours
One of German 1a, p 92	4 "
French 1a, p 95	4 "
One of Greek and Roman History 1, p 85	1 "
Religious Knowledge 1a or 1b or 1c or 1d, p 155	1 "
*Mathematics 1e, 1f, 1g, 1h, p 124	6½"
*Actuarial Science 1a, p 127	1 "
*Physics 1, 2, p 129	6 "
*Chemistry 1, 14, pp 147, 148	4 "

# SECOND YEAR

English 2a, 2b, p 89	2 hours
One of German 2b, p 92	2 "
French 2b, p. 95	2 "
One of History 2a, p 100	2 "
Political Economy 2a, p. 108	2 "
Religious Knowledge 2a or 2b or 2c or 2d or 2e, p 155	2 "
Military Studies 1, p 156	2 "
*Mathematics 2d, 2e, 2f, 2g, p 124	9 "
*Mechanics 2a, p 126	1 "
*Actuarial Science 2c, 2d, p 127	2 "
*Physics 4, 5, 6 part, pp 129, 130	4½"

# THIRD YEAR

One of History 3a, p 101	2 hours
Political Economy 3b, p 109	3 "
Religious Knowledge 3a or 3b or 3c or 3d or 3e or 3f, p 155	3 "
Military Studies 2, p 156	3 "
*Mathematics 3c, 3d (without examination), 3e, 3f, 3g, pp 124, 125	9 "
*Mechanics 3b, 3c, pp 126, 127	3 "
One of *Actuarial Science 3a, p 127	2 "
*Astronomy 2, 3, p. 128	4 "
*Physics 3a, 6 part, pp 129, 130	3½"



## FOURTH YEAR

One of History 4a, 4b, p 101	2 hours
Political Economy 4c, p 111	2 "
Religious Knowledge 4a or 4b or 4c or 4d or 4e or 4f, p 156	2 "
Military Studies 3, p 157	3 "
One of *Mathematics 4f, p 125	2 "
*Mechanics 4a, p 127	2 "
*Actuarial Science 4a, p 127	2 "
*Astronomy 4, p 128	2 "
*Physics, one of 12, 13, 20, 21, 26 part, or two of 14, 15, 22, 23, 24, pp 131, 132	2 "
Three of *Mathematics 4d, 4h, 4i, 4l, pp 125, 126	9 "

## MATHEMATICS AND PHYSICS

## ENTRANCE CONDITIONS

A candidate for admission to the First Year of the Honour Course in Mathematics and Physics must present, in addition to complete Pass Matriculation standing, certificates giving him credit at the Honour Matriculation or an equivalent examination in the following five subjects—Latin, Mathematics (Algebra and Geometry, Trigonometry), Physics, and French or German

A student admitted to this course on probation by special petition, who has not fulfilled all the entrance conditions, must do so at the examination of the First Year See Sections 33-35, p 19

## FIRST YEAR

English 1a, 1b, p 89	2 hours
One of German 1a, p 92	4 "
French 1a, p 95	4 "
One of Greek and Roman History 1, p 85	1 "
Religious Knowledge 1a or 1b or 1c or 1d, p 155	1 "
*Mathematics 1e, 1g, 1h, 1i, p 124	5 "
*Actuarial Science 1a, p 127	1 "
*Physics 1, 2, 18 part, pp 129, 131	7 "
*Chemistry 1, 14, pp 147, 148	4 "

## SECOND YEAR

English 2a, 2b, p 89	2 hours
One of German 2a, p 92	3 "
French 2a, p 95	3 "
One of History 2a, p 100	2 "
Religious Knowledge 2a or 2b or 2c or 2d or 2e, p 155	2 "
Military Studies 1, p 156	2 "

\*Honours

SECOND YEAR—*Continued*

*Mathematics 2d, 2e, 2f, p 124	6 hours
One of *Mathematics 2g part, p 124	1 "
*Actuarial Science 2c, 2d, p 127	2 "
*Mechanics 2a, p 126	1 "
*Physics 3a, 4, 5, 6, p 129, 130	9 "

## THIRD YEAR

One of History 3a, p 101	2 hours
Mathematics 3b, p 123 and Physics 29 part, p 132	1 "
Religious Knowledge 3a or 3b or 3c or 3d or 3e or 3f, p 155	3 "
World History 1 or 2, p 156	2 "
Military Studies 2, p 156	3 "
*Mathematics 3c, 3d (without examination), pp 124, 125	2 "
Two of *Actuarial Science 3a, p 127	2 "
*Physics 14, p 131	1 "
*Physics 15, p 131	1 "
*Mechanics 3b, 3c, 4a, p 126, 127	3 "
*Astronomy 2, 3, p 128	4 "
*Physics 12, 13, 17, p 131	9½ "

## FOURTH YEAR

One of History 4a, 4b, p 101	2 hours
Mathematics 4c, p 124 and Physics 29 part, p 132	1 "
Religious Knowledge 4a or 4b or 4c or 4d or 4e or 4f, p 156	2 "
World History 1 or 2, p 156	2 "
Military Studies 3, p 157	3 "
One of the following divisions	
<i>Division I—Mathematics</i>	
Five of *Mathematics 4d, 4e, 4f, 4g, 4h, 4i, 4j, p 125, *Astronomy 4, p 128, the choice to be determined by the Department	10 hours
One of *Mathematics 4k, p 125	1 "
*Actuarial Science 4a, p 127	2 "
<i>Division II—Physics</i>	
One of *Mechanics 4c, p 127	¾ "
*Mineralogy 3, p. 151	1 "
*Physics 20, 21, 22 or 24, 23, 25, 26, 27, pp 131, 132	17 "

†*Division III—Astronomy and Physics*

*Mathematics 4d, p 125	2 hours
*Mechanics 4b, 4c, p 127	2½"
*Astronomy 4, 5, 6, 7, 8, p 128	15½"
*Physics 20, 27 ( <i>Light</i> ), pp 131, 132	4 "

Candidates in the Astronomy and Physics Division are required to take the lectures of Course 20 during the Michaelmas Term and laboratory work in Optics of Course 27 for two afternoons a week during the Michaelmas Term.

†*Students may qualify for admission to Division III of the Fourth Year of this course by completing the first three years of the Honour Course in Mathematics*

## SCIENCE

## ENTRANCE CONDITIONS

It is to be noted that the Entrance Conditions and First Year prescription are common to all the following Science Courses: Physics, Biology, Physiology and Biochemistry, Biological and Medical Sciences, Chemistry and Mineralogy, Chemistry, Geology and Mineralogy, Science (General) and Psychology.

A candidate for admission to the First Year of any of the above Honour Courses must present, in addition to complete Pass Matriculation standing, certificates giving him credit at the Honour Matriculation or an equivalent examination in the following five subjects—Latin; Mathematics (Algebra and Geometry, Trigonometry), French or German, and one of Physics, Biology, Chemistry.

A student admitted to this course on probation by special petition, who has not fulfilled all the entrance conditions, must do so at the examination of the First Year. See Sections 33-35, p 19.

## FIRST YEAR

English 1a, 1b, p 89	2 hours
German 1b, p. 92	2 "
French 1c, p. 95	2 "
One of Mathematics 1c, p 123	1 "
Religious Knowledge 1a or 1b or 1c or 1d, p 155	1 "
*Physics 1, 2, 18, pp 129, 131	6½"
*Zoology 5, 6, p 136	3¼"
*Botany 5, 6, pp 140, 141	3¼"
*Chemistry 1, 13, pp 147, 148	6¼"
*Geology and Palaeontology 1, p 149	1 "

\**Honours*

PHYSICS

The Entrance Conditions and First Year prescription of this course will be found under the course in Science, page 187.

SECOND YEAR

One of English 2a, 2b, p 89	2 hours
German 2b, p 92	2 "
French 2b, p 95	2 "
Religious Knowledge 2a or 2b or 2c or 2d or 2e, p 155	2 "
Military Studies 1, p 156	2 "
A reading knowledge of French and German for scientific purposes	
*Mathematics 1g, 2c, p 124	4 "
*Physics 3a, 4, 5, 6, p 129, 130	9 "
*Chemistry 3, 7, 15, 24, p 148	8 "

THIRD YEAR

A student in the Faculty of Arts who has completed the Second Year in the Honour Course of Mathematics or Chemistry or Chemistry and Mineralogy, may enter the Third Year of the Honour Course in Physics

A student in the Faculty of Applied Science and Engineering, who has passed the examination of the First and Second Years with honours in any one of the Departments of Civil, Mining, Mechanical, Chemical, Electrical and Metallurgical Engineering, may enter the Third Year of the Honour Course in Physics, provided that he has met the language requirements of the First Year of that course with respect to Latin, English and French or German at the Honour Matriculation or equivalent examination

One of Physics 29 part, p 132	1 hour
Religious Knowledge 3a or 3b or 3c or 3d or 3e or 3f, p 155	3 hours
Military Studies 2, p 156	3 "
A reading knowledge of French and German for scientific purposes	
*Mathematics 2f first half, 3c, p 124	2 "
*Mechanics 3b, 3c, pp 126, 127	3 "
*Physics 12, 13, 14, 15, 17, p 131	11 "

FOURTH YEAR

One of Physics 29 part, p 132	1 hour
Religious Knowledge 4a or 4b or 4c or 4d or 4e or 4f, p 156	3 "
Military Studies 3, p 157	3 "
*Mechanics 4a, p 127	2 "
One of *Mechanics 4c, p. 127	½ "
*Mineralogy 3, p 151	1 "
*Physics 20, 21, 22 or 24, 23, 25, 26, 27, pp 131, 132	17 "

\*Honours

## BIOLOGY

The Entrance Conditions and First Year prescription of this course will be found under the course in Science, page 187

## SECOND YEAR

English 2a, 2b, p 89	2 hours
†One of German 2b, p 92	2 "
French 2b, p 95	2 "
Religious Knowledge 2a or 2b or 2c or 2d or 2e, p 155	2 "
Military Studies 1, p 156	2 "
*Physics 3b, 4, 5, 6, pp 129, 130	7 "
*Zoology 9, p 136	4 "
*Botany 7, 9, p 141	4 "
*Chemistry 3, 7, 15, 24, p 148	8 "
*Geology and Palaeontology 6, 7, p 150	3 "

## THIRD YEAR

One of English 3a, 3b, p 89	3 hours
Astronomy 2, p 128	2 "
Religious Knowledge 3a or 3b or 3c or 3d or 3e or 3f, p 155	3 "
Military Studies 2, p 156	3 "
*Zoology 7, 8, 12, 13, pp 136, 137	9 "
*Botany 14, 17, pp 141, 142	9 "
*Biochemistry 1, 3, p 144	7 "

## FOURTH YEAR

One of Zoology 15a, p 137 (History of Biological Science)	2 hours
Religious Knowledge 4a or 4b or 4c or 4d or 4e or 4f, p 156	3 "
Military Studies 3, p. 157	3 "
*Zoology 19, p 137	
*Botany 16, p 142	
*Zoology 15, p 137 or *Botany 20, p 142	

A selection of twenty hours from the following divisions, subject to the approval of the Department and the conditions set forth below

*Division I—Zoology*

\*Zoology 14, 16, 17, 18 and 18a, 20, 21, 22, 23, pp 137, 138 each 4 hours

*Division II—Botany*

\*Botany 18 or 19, 10 or 11, 14, 20a, 22, 8 and 15, 8 and 23, pp 141, 142 each 4 hours

At least one course must be taken in each division The four remaining courses may be taken in one or both divisions

*\*Honours*

†The selection of the language must be approved by the Staff in Biology

Special work in one subject already selected may be substituted for one course otherwise necessary

Students may in exceptional cases substitute for one of the courses a course of corresponding standard in another department

Note—Students proceeding to graduate or special work, in which an acquaintance with the original literature is required, are advised to seek proficiency in reading scientific French and German during their undergraduate course

# PHYSIOLOGY AND BIOCHEMISTRY

The Entrance Conditions and First Year prescription of this course will be found under the course in Science, page 187

The curriculum of this course in the First and Second Years is the same as that for Biological and Medical Sciences (the combined course in Arts and Medicine) During the Third and Fourth Years the curriculum is arranged for specialization in Physiology and Biochemistry *without reference to Medicine*

## SECOND YEAR

English 2a, 2b, p 89	2 hours
Mathematics 1k, 1l, p 126	2 "
One of German 2b, p 92	2 "
French 2b, p 95	2 "
Religious Knowledge 2a or 2b or 2c or 2d or 2e, p 155	2 "
Military Studies 1, p 156	2 "
*Physics 3b, 4, 5, 6, pp 129, 130	7 "
*Zoology 7, 8, p 136	7 "
*Chemistry 3, 7, 15, 24, p 148	8 "

## THIRD YEAR

One of †Astronomy 2, p 128	2 hours
†Zoology 15a, p 137 (History of Biological Science)	2 "
Religious Knowledge 3a or 3b or 3c or 3d or 3e or 3f, p 155	3 "
Military Studies 2, p 156	3 "
Mathematics 2h, p 126	2 "
A reading knowledge of Scientific French or German	
*Zoology 27, 29, pp 138, 139	6 "
*Biochemistry 1, 3, p 144	7 "
*Physiology 1, 2, 5, p 146	7 "
*Physics 25, p 132	¾ "
*Chemistry 4, 19 part, p 148	8 "

†If either of these subjects is taken in the Third Year it cannot constitute an option in the Fourth Year

\*Honours

## FOURTH YEAR

One of †Astronomy 2, p 128	2 hours
‡Zoology 15a, p 137 (History of Biological Science)	2 "
Religious Knowledge 4a or 4b or 4c or 4d or 4e or 4f, p 156	3 "
Military Studies 3, p 157	3 "
A reading knowledge of Scientific French or German	
Mathematics 3h, p 126	2 "
*Physics 19, p 131	2 "
*Botany 17, p 142	4 "
One of the following divisions	
<i>Division I—Biochemistry</i>	
*Chemistry 20 part, p 148	3 hours
*Biochemistry 2, 4, 5, p 144	8 "
*Special work in Biochemistry or Zymology or Organic Chemistry or Physical Chemistry	10 "
<i>Division II—Physiology</i>	
*Biochemistry 2, 4 part, p 144	5 "
*Physiology 3, 4, 6, 8, p 146	16 "
‡If either of these subjects is taken in the Third Year it cannot constitute an option in the Fourth Year	

## BIOLOGICAL AND MEDICAL SCIENCES

The Entrance Conditions and First Year prescription of this course will be found under the course in Science, page 187

## SECOND YEAR

English 2a, 2b, p 89	2 hours
Mathematics 1k, 1l, p 126	2 "
One of German 2b, p 92	2 "
French 2b, p 95	2 "
‡Psychology 2c, p 121	2 "
Religious Knowledge 2a or 2b or 2c or 2d or 2e, p 155	2 "
Military Studies 1, p 156	2 "
*Physics 3b, 4, 5, 6, pp 129, 130	7 "
*Zoology 7, 8, p 136	7 "
*Chemistry 3, 7, 15, 24, p 148	8 "

## THIRD YEAR

One of †Psychology 3c, p 122	2 hours
Mathematics 2h, p 126	2 "
Religious Knowledge 3a or 3b or 3c or 3d or 3e or 3f, p 155	3 "
Military Studies 2, p 156	3 "
*Anatomy 1, 2, 3, p 143	21 "
*Biochemistry 1, p 144	2 "
*Physiology 2, 5, p 146	4 "

\*Honours

FOURTH YEAR

One of †Psychology	2 hours
Mathematics 3h, p 126	2 "
Zoology 15a, p 137 (History of Biological Science)	2 "
Religious Knowledge 4a or 4b or 4c or 4d or 4e or 4f, p 156	3 "
Military Studies 3, p 157	3 "
*Anatomy 4, 5, p 143	4 "
*Biochemistry 3, 5, p 144	7 "
*Physiology 1, 3, 4, 6, 8, p 146	10 "
*Bacteriology. Third Year course in the Faculty of Medicine	4½ "
*Special work in one subject to be arranged with head of department of subject elected by student	6 "

†A student desiring to take special honour work in Psychology in the Fourth Year must have credit for Psychology 2c and 3e before he enters the Fourth Year. A student who was unable to take Psychology 2c in the Second Year, may with the consent of the staff, take that course in the Third Year instead of Psychology 3e which he must then take in the Fourth Year.

CHEMISTRY AND MINERALOGY

The Entrance Conditions and First Year prescription of this course will be found under the course in Science, page 187

SECOND YEAR

English 2a, 2b, p 89	2 hours
†One of German 2b, p 92	2 "
French 2b, p 95	2 "
One of Chemistry 6b, p 148	
Religious Knowledge 2a or 2b or 2c or 2d or 2e, p 155	2 "
Military Studies 1, p 156	2 "
*Mathematics 2c, p 124	2 "
*Physics 3a, 4, 5, p 129	3 "
*Chemistry 3, 7, 9, 16, p 148	
*Geology and Palaeontology 6, 7, p 150	3 "
*Mineralogy and Petrography 1, 3, 4, pp 151, 152	5 "

DIVISION I—THIRD YEAR

A reading knowledge of French and German for scientific purposes

One of History 3a, p 101	2 hours
Chemistry 6b, p 148	
Religious Knowledge 3a or 3b or 3c or 3d or 3e or 3f, p 155	3 "
Military Studies 2, p 156	3 "

\*Honours

†Selection to be approved by the Staff in Chemistry and Mineralogy



THIRD YEAR—*Continued*

*Mathematics 3c, p 124	1 hour
*Physics 6, p 130	6 hours
*Chemistry 4, 8, 10, 12a, 19, 20, p 148	
*Mineralogy and Petrography 6, p 152	2 "

## DIVISION I—FOURTH YEAR

A reading knowledge of French and German for scientific purposes	
One of History 4a, 4b, p 101	2 hours
Chemistry 6b, p 148	
Religious Knowledge 4a or 4b or 4c or 4d or 4e or 4f, p 156	3 "
Military Studies 3, p 157	3 "
*Physics 16, p 131	½ "
One of *Zoology 9, 12, p 136, and *Botany 7, 9, p 141	4 "
A defined part of *Chemistry 21, p 148	
*Chemistry 5, 6a, 11, 21, p 148	

## DIVISION II—THIRD YEAR

One of English 3a, 3b, p 89	3 hours
Astronomy 2, p 128	2 "
Religious Knowledge 3a or 3b or 3c or 3d or 3e or 3f, p 155	3 "
Military Studies 2, p 156	3 "
A reading knowledge of French and German for scientific purposes	
*Physics 6, p 130	6 "
*Chemistry 8, p 148	
*Geology and Palaeontology 8, 9, 10, 11, p 150	9 "
*Mineralogy and Petrography 5, 6, 7, 8, 11, p 152	10 "

## DIVISION II—FOURTH YEAR

One of English 4a, 4b, p 90	2 hours
Mineralogy 15, p 152	2 "
Religious Knowledge 4a or 4b or 4c or 4d or 4e or 4f, p 156	3 "
Military Studies 3, p 157	3 "
A reading knowledge of French and German for scientific purposes	
One of *Zoology 9, 12, p 136, and *Botany 7, 9, p 141	4 "
*Geology and Palaeontology 14, 16, p 151	5 "
*Geology and Palaeontology 12, 13, 15, 19, 20, pp 150, 151	8 "
*Mineralogy and Petrography 9, 10, 12, 13, 14, p 152	14 "

\*Honours

## CHEMISTRY

The Entrance Conditions and First Year prescription of this course will be found under the course in Science, page 187

## SECOND YEAR

English 2a, 2b, p 89	2 hours
†One of German 2b, p 92	2 "
French 2b, p 95	2 "
One of Chemistry 6b, p 148	
Religious Knowledge 2a or 2b or 2c or 2d or 2e, p 155	2 "
Military Studies 1, p 156	2 "
*Mathematics 2c, p 124	2 "
*Physics 3a, 4, 5, p 129	3 "
*Chemistry 3, 7, 9, 16, 17, p 148	
*Mineralogy and Petrography 1, 2, p 151	2 "

## THIRD YEAR

A reading knowledge of French and German for scientific purposes

One of Chemistry 6b, p 148	
Religious Knowledge 3a or 3b or 3c or 3d or 3e or 3f, p 155	3 hours
Military Studies 2, p 156	3 "
*Mathematics 3c, p 124	1 "
*Chemistry 4, 8, 10, 12a, 12b, 19, 20, p 148	
*Mineralogy and Petrography 3, p 151	1 "

## FOURTH YEAR

A reading knowledge of French and German for scientific purposes

One of Chemistry 6b, p 148	
Religious Knowledge 4a or 4b or 4c or 4d or 4e or 4f, p 156	3 hours
Military Studies 3, p 157	3 "
*Chemistry 5, 6a, 11, 21, p 148	

## GEOLOGY AND MINERALOGY

The Entrance Conditions and First Year prescription of this course will be found under the course in Science, page 187

## SECOND YEAR

English 2a, 2b, p 89	2 hours
†One of German 2b, p 92	2 "
French 2b, p 95	2 "
One of Geology and Palaeontology 17, p 151	1 "
Mathematics 2c, p 124	2 "
Religious Knowledge 2a or 2b or 2c or 2d or 2e, p 155	2 "
Military Studies 1, p 156	2 "
*Physics 3b, 4, 5, 6, p 129, 130	7 "
*Zoology 9, p 136	4 "
*Botany 7, p. 141	3 "
*Chemistry 3, 7, 15, 24, p 148	8 "
*Geology and Palaeontology 6, 7, p 150	3 "
*Mineralogy and Petrography 1, 2, p 151	2 "

## THIRD YEAR

One of English 3a, 3b, p 89	3 hours
Religious Knowledge 3a or 3b or 3c or 3d or 3e or 3f, p 155	3 "
Military Studies, 2, p 156	3 "
A reading knowledge of French and German for scientific purposes	
*Chemistry 17, p 148	
*Geology and Palaeontology 8, 9, 10, 11, p 150	9 "
*Mineralogy and Petrography, 3, 4, 6, 8, 11, pp 151, 152	9 "

## FOURTH YEAR

One of English 4a, 4b, p 90	3 hours
Religious Knowledge 4a or 4b or 4c or 4d or 4e or 4f, p 156	3 "
Military Studies 3, p 157	3 "
A reading knowledge of French and German for scientific purposes	
One of *Zoology 23 part, p 138 and *Botany 8, 15, pp 141, 142	3 "
*Geology and Palaeontology 14, p 151 and *Mineralogy and Petrography 14, p 152	3 "
*Geology and Palaeontology 12, 13, 15, 16, 18, 19, 20, 22, pp 150, 151	12 "
*Mineralogy and Petrography 5, 7, 9, 12, 13, p 152	11 "

\*Honours

†Selection to be approved by the Staff in Geology and Mineralogy

## SCIENCE (GENERAL)

The Entrance Conditions and First Year prescription of this course will be found under the course in Science, page 187

## SECOND YEAR

English 2a, 2b, p 89	2 hours
One of German 2b, p 92	2 "
French 2b, p 95	2 "
Religious Knowledge 2a or 2b or 2c or 2d or 2e, p. 155	2 "
Military Studies 1, p 150	2 "
*Mathematics 2c, p 124	2 "
*Physics 3b, 6 part, pp 129, 130	4 "
*Zoology 9, p 136	4 "
*Botany 7, 9, p 141	4 "
*Chemistry 7, 15, p 148	6 "
*Geology and Palaeontology 6, 7, p 150	3 "
*Mineralogy and Petrography 1, 2, p 151	2 "

## THIRD YEAR

One of History 3a, p 101	2 hours
Religious Knowledge 3a or 3b or 3c or 3d or 3e or 3f, p 155	3 "
Military Studies 2, p 150	3 "
*Astronomy 2, p 128	2 "
*Physics 4, 5, 6 part, 13, 17 part, pp 129-131	8 "
*Zoology 7 part, 12, p 136	3 "
*Botany 17, p 142	4 "
*Chemistry 3, p 148	2 "
*Geology and Palaeontology 8, p 150	2 "
*Mineralogy and Petrography 3, 4, pp 151, 152	4 "

## FOURTH YEAR

One of History 4a, 4b, p 101	2 hours
Religious Knowledge 4a or 4b or 4c or 4d or 4e or 4f, p. 156	2 "
Military Studies 3, p 157	3 "
*Astronomy 3, p 128	2 "
*Physics (to be selected)	4 "
*Zoology 23, p 138 or *Botany 14, p 141	4 "
*Chemistry 8, 25, pp 148, 149	4 "
*Geology and Palaeontology 13, 18, pp 150, 151 }	4 "
*Mineralogy and Petrography 6 part, 11, p 152 }	
One of *Physics (to be selected)	4 "
*Zoology 23, p 138	4 "
*Botany 10 or 14, 20, pp 141, 142	4 "
*Chemistry (to be selected)	4 "
*Geology and Palaeontology 15, 16, p 151	4 "

## HOUSEHOLD SCIENCE

A candidate for admission to the First Year of the Honour Course in Household Science must present, in addition to complete Pass Matriculation standing, certificates giving her credit at the Honour Matriculation or an equivalent examination in the following five subjects—Latin, Mathematics (Algebra and Geometry, Trigonometry), French or German, and one of Physics, Biology, Chemistry

A student admitted to this course on probation by special petition, who has not fulfilled all the entrance conditions, must do so at the examination of the First Year See Sections 33-35, p 19

## FIRST YEAR

English 1a, 1b, p 89	2 hours
German 1b, p 92	2 "
French 1c, p 95	2 "
One of Mathematics 1c, p 123	1 "
Religious Knowledge 1a or 1b or 1c or 1d, p 155	1 "
*Physics 1, 2, 18, pp 129, 131	6¼"
*Zoology 5, 6, p 136	3¼"
*Botany 5, 6, pp 140, 141	3¼"
*Chemistry 1, 13, pp 147, 148	6¼"
*Household Science 1b, p 153	1 "

## SECOND YEAR

English 2a, 2b, p 89	2 hours
One of German 2b, p 92	2 "
French 2b, p 95	2 "
Religious Knowledge 2a or 2b or 2c or 2d or 2e, p 155	2 "
*Physics 3b, 4, 5, 6, p 129, 130	7 "
*Zoology 10, p 136	2 "
*Botany 13, p 141	2 "
*Chemistry 3, 7, 15, 24, p 148	8 "
*Household Science 2 part, p 153	6 "

## THIRD YEAR

One of English 3a, 3b, p 89	3 hours
History 3a, p 101	2 "
Religious Knowledge 3a or 3b or 3c or 3d or 3e or 3f, p 155	3 "
*Physiology 2, 5, p 146	4 "
*Biochemistry 1, 3, p 144	7 "
*Household Science 3b, p 153	12 "
*Hygiene and Sanitation	1 " ,

\*Honours

## FOURTH YEAR

One of English 4a, 4b, p 90	3 hours
History 4a, 4b, p 101	2 "
Religious Knowledge 4a or 4b or 4c or 4d or 4e or 4f, p 150	3 "
*Food Chemistry 1, 3, p 145	10 "
*Household Science 4b, 4c, 4d, p 153	10 "

## HOUSEHOLD ECONOMICS

## ENTRANCE CONDITIONS

A candidate for admission to the First Year of the Honour Course in Household Economics must present, in addition to complete Pass Matriculation standing, certificates giving her credit at the Honour Matriculation or an equivalent examination in the following five subjects—Latin, Mathematics (Algebra and Geometry), two of English, French or German, Physics, Biology, Chemistry, together with an additional subject, the candidate is recommended to take French or German and a Science

A student admitted to this course on probation by special petition, who has not fulfilled all the entrance conditions, must do so at the examination of the First Year See Sections 33-35, p 19

## FIRST YEAR

English 1a, 1b, p 89	2 hours
One of German 1a, p 92	4 "
French 1a, p 95	4 "
One of Household Science 1a, p 153	1 "
Religious Knowledge 1a or 1b or 1c or 1d, p 155	1 "
*Physics 28, p 132	4 "
*Zoology 5, 6, p 136	3¼"
*Botany 5, 6, pp 140, 141	3¼"
*Chemistry 1, 13, pp 147, 148	6½"
*Household Science 1b, p 153	1 "

## SECOND YEAR

One of English 2a, 2b, p 89	2 hours
Religious Knowledge 2a or 2b or 2c or 2d or 2e, p 155	2 "
One of German 2a, p 92	3 "
French 2a, p 95	3 "
*Zoology 10, p 136	2 "
*Botany 13, p 141	2 "
*Chemistry 3, 15 part, p 148	4 "
*Household Science 2, p 153	10 "

## THIRD YEAR

Philosophy 3a, pp 115, 116 or †3g, p 118	3 hours
One of English 3a, 3b, p 89	3 "
History 3a, p 101	2 "
Religious Knowledge 3a or 3b or 3c or 3d or 3e or 3f, p 155	3 "
*Biochemistry 1, 3, p 144	7 "
*Household Science 3b, p 153	12 "
*Hygiene and Sanitation	1 "

## FOURTH YEAR

Political Economy 4h, p 112	3 hours
One of English 4a, 4b, p 90	3 "
History 4a, 4b, p 101	3 "
Philosophy 4a, p 116 or †4h, p 119	3 "
Religious Knowledge 4a or 4b or 4c or 4d or 4e or 4f, p 156	3 "
*Food Chemistry 1, 2, p 145	8 "
*Household Science 4b, 4c, 4d, p 153	10 "

†*St Michael's College*

\**Honours*

## DEGREE OF BACHELOR OF COMMERCE

### COMMERCE AND FINANCE

The Course in Commerce and Finance (formerly included as an Honour Course in Arts) and the course in Commerce have been amalgamated. The new course, called hereafter Commerce and Finance, leads only to the Degree of Bachelor of Commerce.

The intention of the course is to provide a training for business and commercial life in general and at the same time to prepare applicants for the consular service, trade commissionerships abroad, for the foreign representation of Canadian firms, for employment management, employment service, etc., as well as for the statistical and employment departments of large business houses.

#### ENTRANCE REQUIREMENTS

Pass Matriculation	English, History, Mathematics and three of Greek, Latin, French, German, Italian or Spanish, Experimental Science (Physics and Chemistry) or Agriculture (Parts I and II)
Honour Matriculation	English, Mathematics (Algebra, Geometry and Trigonometry) and two of Latin, French, German, Italian or Spanish, Biology or Physics or Chemistry

A student who submits a Part I Commercial Specialists' Certificate may substitute the same for Ancient History and a language of Pass Matriculation and for the Geometry and Trigonometry of Honour Matriculation.

#### GENERAL REGULATIONS FOR THE COURSE

1 A candidate will not receive credit in a subject unless he obtains at least fifty per cent of the examination marks as well as fifty per cent of the aggregate of the term and examination marks in that subject.

2 A candidate will not be granted exemption from lectures and examination in any subject of the First Year, even though he may have Honour Matriculation or equivalent standing in the subject.

3 A candidate will be granted Honour standing who, obtaining at least fifty per cent in each of the subjects of a year, also obtains an average of seventy-five per cent of all the marks assigned to the subjects of the year.

4 A candidate for the Examination of any year will be granted Pass standing provided he passes in all, or all but one of the subjects of the year.

5 A candidate who has failed in two subjects at the Annual Examination will be debarred from registration and enrolment until he has obtained standing in at least one of these subjects. (See foot note on page 201)



6 A candidate in any year, who has failed completely at the May examination, will not be allowed to write at the September examination on any paper or papers set for students in Commerce and Finance, if he wishes to proceed in the course he must repeat the year in which he has failed to secure standing

7 Before the completion of the course of four years a candidate must produce evidence of employment for a definite period in a commercial firm, in public service or in some business capacity

By arrangement with the Department of Education graduates in this course who have obtained a Part I Commercial Specialists' Certificate either prior to entering the University or during the course, will be recognized as having secured the academic standing required from candidates for the Commercial Specialists' Certificate

#### FIRST YEAR

One of English 1a, 1b, p 89	2 hours
History 1a, 1b, p 100	2 "
One of Latin 1a, p 83	4 "
German 1f, 1g, p 93	3 "
French 1d, 1e, 1f, p 96	4 "
Italian 1a or 1c, p 98	4 "
Spanish 1a or 1d, p 99	4 "
*Political Economy 1a, p 107	2 "
*Mathematics 1j, p 124	2 "
*Actuarial Science 1a, 1b, p 127	2 "
Geology and Palaeontology 21, p 151	1 "

Note—The language chosen in the First Year must be continued throughout the four years, unless a student wishes to pursue advanced studies in Actuarial Science in which case he may drop the chosen language after two years and take Actuarial Science in the Third and Fourth Years

#### SECOND YEAR

One of English 2a, 2b, p 89	2 hours
History 2g, p 103	2 "
Philosophy 2a (i), p 115 or †2e, p 118	2 "
Mathematics 2c, p 124	2 "
One of Latin 2a, p 83	3 "
German 2f, p 93	3 "
French 2c, 2d, 2e, p 96	4 "
Italian 2a or 2b, p 98	3 "
Spanish 2a or 2b, p 99	3 "
*Political Economy 2a, 2b, 2c, p 108	9 "
*Actuarial Science 2b, 2d, 2a or 2c, p 127	4 "

\*A candidate who fails to secure 50 per cent in this subject at the May examination will not be granted standing in his year but must repeat the entire work of the year in a subsequent session

†St Michael's College

THIRD YEAR

One of Latin 3a, p 83	3 hours
German 3f, p 93	3 "
French 3b, p 96	2 "
Italian 3e, p 98	3 "
Spanish 3e, p 99	3 "
Actuarial Science 3a, p 127	2 "
*Political Economy 3a, 3b, 3c, 3d, pp 109, 110	12 "

FOURTH YEAR

One of Latin 4a, p 83	3 hours
German 4f, p 94	3 "
French 4b, p 96	2 "
Italian 4d, p 98	3 "
Spanish 4e or 4f, p 100	3 "
Actuarial Science 4a, p 127	2 "
*Political Economy 2b, 4g, 4i, pp 108-112	6 "
*Two of Political Economy 4b, p 111, 4c, p 111, 4f, pp 111, 112	4 "
*Law 4e, pp 114, 115	1 "

\*A candidate who fails to secure 50 per cent in this subject at the May examination will not be granted standing in his year but must repeat the entire work of the year in a subsequent session



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SUMMER SESSION

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# UNIVERSITY OF TORONTO

## SUMMER SESSION, 1924

During the Summer Session of 1924 the University of Toronto offers

(a) The Course leading to the Degree of Bachelor of Arts (The Teachers' Course)

(b) Courses leading to the Degrees of Bachelor of Pedagogy and Doctor of Pedagogy

(c) Summer Course in Dramatic Art

## GENERAL INFORMATION

### SESSION

Enrolment with the instructors will begin at 10 a m , Wednesday, July 2nd, and may be completed at any time between 10 a m and 12 a m or between 2 p m and 4 p m on that day. Students should first call at the Extension Office for cards of admission. The work of instruction will begin on the morning of Thursday, July 3rd, and continue through Saturday, August 9th, including Saturday forenoons, but exclusive of Civic Holiday.

The Extension Office is now in Simcoe Hall, between Convocation Hall and Knox College.

### REGISTRATION

Application for registration should be made on the form in this Calendar and should, if possible, be forwarded to the Director of University Extension before June 6th. Applications will be accepted up to July 2nd but subjects not mentioned in this Calendar cannot be arranged for after June 6th.

### RESIDENCES

The University Residences will be open for the accommodation of students from the beginning of the Session to August 2nd. From that date the University is entertaining the British Association for the Advancement of Science and feels under obligation to offer them the accommodation of the residences.

Those who wish to have accommodation in the residences from July 2nd to August 2nd should make application, as usual, to Mr A T Laidlaw, Registrar's Office, University of Toronto. A deposit fee of \$5.00 should accompany the application.

### LIBRARY

Students of the Summer Session will be admitted to the privileges of the University Library.

## EXCURSIONS AND ADDRESSES

Arrangements will be made, if students so desire, to visit a few places of interest under the personal direction of one who is able to give special instruction on the point of interest. Tennis courts will be available for those who wish to use them. Social functions are arranged each year with the co-operation of the Students' Committee.

Evening lectures will be arranged during the session on subjects of general interest.

## THE COURSE LEADING TO THE B A DEGREE

## ADMISSION

Applications for admission to the University are to be made on the special forms provided and must be accompanied by all secondary school certificates held by the applicant. Certificates should be sent by registered mail, they are returned as soon as their purpose has been served.

## FEES

Tuition—One subject, \$10 00, two subjects, \$18 00, three subjects, \$24 00

For admission by certificate to the Second Year \$15 00

For admission *ad eundem statum* \$10 00

Examinations—\$2 00 each subject

Laboratory—For Practical Work in the laboratory, a deposit fee is required at the beginning of the Session to cover breakages. All, or part, of the fee is returned at the close of the term according to the number and value of the breakages.

## EXAMINATIONS

The Council of the Faculty of Arts will make arrangements whenever possible to allow a candidate who is teaching in Ontario to take his examination in his own locality.

## SUBJECTS

## FIRST YEAR

The work for all students in the Pass Course of the First Year is defined as

- 1 English
- 2 Latin
- 3 Mathematics (Algebra and Geometry)
- 4 General Science
- 5 One of Greek, Hebrew, German, French, Italian or Spanish
- 6 One of Greek and Roman History, Mathematics (Trigonometry), Religious Knowledge

7 One of a second Language from 5, French (advanced), Mathematics (advanced), History and Political Economy, Greek and Roman History and Political Economy

English, Latin, Mathematics (Algebra, Geometry and Trigonometry), Science (Biology, Physics and Chemistry), Greek, German, French, Spanish, are all subjects in the Upper School curriculum. The University has for over thirty years granted exemption from subjects of the First Year Pass Course to those who hold First Class or equivalent certificates. It has been decided to accept the compulsory History of the First Class certificate as equivalent in value to the Greek and Roman History of the Pass Course of the First Year but not in the combined History and Political Economy options of Group 7. One of the Sciences (Biology, Physics, Chemistry) will be sufficient to relieve a student of the examination in General Science (4).

It is possible, therefore, for a student presenting Upper School or Honour Matriculation certificates in English, Latin, Algebra and Geometry, Science (Biology or Physics or Chemistry), History or Trigonometry and two of Greek, German, French, Spanish, to enter the Second Year without conditions other than the payment of the regulation fee. A student who lacks one of these subjects may enter the Second Year on payment of the fee but is required to pass subsequently in the subject necessary to complete the First Year, such a subject, if continued as part of the work of the Second Year, debars a candidate from standing of the Second Year in that subject until the First Year condition is removed and from entrance to the Third Year as well.

The Teachers' Course provided by the University begins in the Second Year and the candidates hitherto admitted have held for the most part Faculty Entrance Certificates which allowed the holder of such a certificate on the Language side admission without conditions and those with certificates on the Science side admission with a Language—usually French—standing against them.

The older Pass Course of the First Year comprised six subjects, the existing Course requires seven. The conditions at present required for the First Class certificate have also changed. The compulsory subjects are only English and History. The groups and options are greatly changed so that in the future those with First Class certificates intending to proceed with the Teachers' Course cannot be admitted so readily to the Second Year.

Three types of First Class certificates may be considered on the understanding that candidates take both Algebra and Geometry. Any other combination in Mathematics would not be so satisfactory.

(a) A candidate who takes two Languages, one of which is Latin. The certificate of such a candidate would be accepted for English (Group 1), Algebra and Geometry (Group 3), History (Group 6), Latin (Group 2), and a Language from Group 5, and, on completing a subject from Group 7, he would be admitted to the Second Year, but would be required to take

the Science of Group 4 as part of that Year's work. This First Year Science would be in addition to the compulsory Science of the Second Year, and candidates are strongly advised to remove this First Year Science condition by securing standing in Biology or Physics or Chemistry of the Upper School.

(b) A candidate who takes a Language and a Science would be deficient in either Latin or a Language from Group 5 and in one of the subjects of Group 7. One of these conditions must be removed before admission to the Second Year.

(c) A candidate who takes two Sciences is deficient in Groups 2, 5 and 7. Two of the conditions must be removed before entering the Second Year but such a candidate is relieved of the compulsory Science of that year.

It will be seen that the best choice, for the double purpose of securing a First Class certificate as well as entrance to the Teachers' Course, is to secure the certificate on English, History, Algebra and Geometry, Latin, French and a Science. That is, taking one subject more than is necessary for the certificate so that such a student would have one condition—a subject from Group 7—standing against him.

In view of the character of the curriculum in the Second, Third, and Fourth Years candidates will see the necessity of taking French in the Upper School course. The complete Mathematics of the Upper School (Algebra, Geometry, and Trigonometry) is an absolute condition for admission to the Mathematics in the Second Year.

#### SECOND YEAR

English *or* Mathematics, French, Science, History, Psychology *or* Political Economy.

#### THIRD YEAR

English, French *or* Mathematics, Science, History, Ethics *or* Political Economy.

#### FOURTH YEAR

English, French *or* Mathematics, Science, History, History of Philosophy *or* Political Economy.

The Science of these three years is made up of Botany, Zoology, and Geology which are offered in any order, one each session, and are of equal value. A student who selects Mathematics, or Political Economy, or the philosophical group of subjects, must take the subject or group chosen throughout the three years, *i. e.*, the sequence provided by these subjects cannot be broken.

#### REGULATIONS GOVERNING THE TEACHERS' COURSE

1. These courses are open to persons actually engaged in teaching and to such others as have been approved by the Council. In all cases application for admission must be made to the Registrar of the University.



through the Director of University Extension. Only under exceptional circumstances will a candidate be allowed to attend classes in more than three subjects during one session of the Teachers' Course.

2 A student proceeding to the degree shall on or before *October 1st* of each year submit a statement of the work which he proposes to take (a) in the Teachers' Classes or (b) under supervision preparatory to the Summer Session, and on or before *May 15th* of each year, a similar statement of the work he desires to take during the Summer Session.

3 A student will receive credit for each subject in which he secures fifty per cent.

4 A student will not receive credit for a subject of a higher year until he has passed the examination of the lower year in the same subject. He may, however, be a candidate for examination in the work of two successive years in the same subject.

5 A student who has not been granted complete First Year standing may not enter upon the work of the Third Year, nor a student who has not been granted complete Second Year standing, upon the work of the Fourth Year.

6 Pursuant to Section 124 of the Revised Statutes of Ontario, 1913, in the case of a candidate for the degree of Bachelor of Arts, registered in the Teachers' Course, enrolment in one of the Arts Colleges shall not be necessary.

7 Instruction during the regular session will be given as far as possible to meet the convenience of the members of the classes residing in Toronto and its immediate vicinity. Instruction during the regular session is also provided, as far as possible, in other centres in the Province where a sufficient number of teachers, or others employed during the day, may be enrolled.

8 The Summer Session is held during July and a part of August, and is open (a) to persons engaged in teaching, (b) to such others as have been approved by the Council of the Faculty of Arts, and (c) to regular students who have failed to receive credit in one or at most two subjects of the Pass Course, provided always that instruction in such subjects has been arranged for at that Summer Session.

9 The work of the Second, Third, and Fourth Years of the Teachers' Course may be covered in five years and will involve (a) attendance on Teachers' Classes during four regular sessions or (b) attendance for four Summer Sessions and supervision during four regular sessions.

10 Instead of completing his course under this plan a candidate proceeding to the degree is advised to attend the regular courses of instruction in the Fourth Year, in which case the fourth Summer Session is not compulsory. Students are advised to acquaint themselves with the regulations of the Department of Education respecting High School Assistants' certificates.

11 A candidate will not be allowed to present himself for examination in any subject until he has attended one Summer Session and has had supervision of his work during one academic year, or until he has attended Teachers' Classes in that subject during one regular session or until he has completed the necessary minimum of attendance. See Section 9.

12 Supervision of work should precede the Summer Session but, as such supervision may follow class instruction, assistance in the work of either group of the Second Year or of the Third Year will be provided.

### SUBJECTS OFFERED IN SUMMER SESSION, 1924

(For details of courses, see pages 9-10)

<i>Second Year</i>	English, French, Zoology
<i>Third Year</i>	English, History of Philosophy, Political Economy, Science
<i>Fourth Year</i>	English, Science

It is essential that requests for subjects not mentioned in this list should be sent in early so that the necessary arrangements for classes can be made. The time-table will not permit of a student taking, at the same time, other summer courses besides those offered by the University.

### COURSES OF INSTRUCTION, SUMMER SESSION, 1924

#### FACULTY OF ARTS

##### SECOND YEAR

##### ENGLISH

Composition	The writing of original compositions
Shakespeare	Romeo and Juliet, Henry IV, Parts I and II, Twelfth Night, Hamlet

##### FRENCH

Grammar, dictation, translation from English into French, translation at sight from modern French. The following texts are prescribed: PIERRE LOTI, *Pêcheur d'Islande*, ÉDOUARD PAILLERON, *Le Monde où l'on s'ennuie*, FRANÇOIS COPPÉE, *Pour la couronne*, *French Short Stories* (ed. Buffum) or GEORGES DURUY, *Histoire sommaire de la France (Classe de septième)*, together with ANATOLE FRANCE, *Le Livre de mon ami*.

##### ZOOLOGY

An elementary course on the general structure of the animal body, its organs and tissues and their functions, and the classification and natural history of the common animals of Ontario, with special attention to principles of specialization, adaptation, and distribution. The course is designed to give the student training in the scientific method, and also to afford assistance in the teaching of Nature Study.

## THIRD YEAR

## ENGLISH

The selections from MILTON, DRYDEN, POPE, GOLDSMITH (omitting *The Traveller*), COWPER, BURNS, BLAKE, CRABBE, WORDSWORTH (except *Personal Talk* and the extracts which follow), COLERIDGE, SCOTT and BYRON (omitting *Manfred*), SWIFT, *Gulliver's Travels*, Books I and II, ADDISON, *Select Essays*, JOHNSON, *Preface to Shakespeare*, *Life of Addison*, GOLDSMITH, *Vicar of Wakefield*, WORDSWORTH, *Preface to Lyrical Ballads*, JANE AUSTEN, *Pride and Prejudice*, LAMB, *Select Essays*, CARLYLE, *Signs of the Times*, NEWMAN, *Idea of a University (Knowledge its Own End, Knowledge in Relation to Learning)*

## POLITICAL ECONOMY

Economic Theory For pass students Books recommended ADAM SMITH, *Wealth of Nations*, MALTHUS, *On Population*, RICARDO, *Political Economy*, GIDE AND RIST, *History of Economic Doctrines*, MARX AND ENGELS, *Communist Manifesto*, SPARGO, *Socialism*, LEVINSEY, *The Founders of Political Economy*

## HISTORY OF PHILOSOPHY

History of the problems of Philosophy with special reference to (a) the Greek period (Thales to Plato) and the Stoics, (b) the origins of modern Philosophy in the Seventeenth Century

Texts PLATO, *Republic*, LOCKE, *Essay on the Human Understanding*, Books II and IV Supplementary reading is prescribed in the course of instruction

## FOURTH YEAR

## ENGLISH

Later nineteenth-century literature selections from SHELLEY to MORRIS in *Representative Poetry*, selections from *An Anthology of Modern Verse* (Methuen), essays by SHELLEY and MILL in *English Critical Essays of the Nineteenth Century* (World's Classics), CARLYLE, *Sartor Resartus* (Books I and II), DICKENS, *Great Expectations*, THACKERAY, *Vanity Fair*, ARNOLD, *The Function of Criticism*, *The Literary Influence of Academies*

## COURSES FOR DEGREES IN PEDAGOGY

The Ontario College of Education offers courses of instruction for the degrees in Pedagogy during the regular College Sessions and during Summer Sessions

## DEGREE OF BACHELOR OF PEDAGOGY (B PAED)

The degree of Bachelor of Pedagogy (B Paed) will be awarded under the following conditions

1 The candidate shall hold an approved degree in Arts, Science, Agriculture, Engineering, or Commerce

2 The candidate shall be in attendance at the Ontario College of Education during two regular College Sessions or three Summer Sessions A High School Assistant's, or First Class, or Second Class certificate valid in Ontario or a regular course in an approved training school for teachers will be accepted in lieu of attendance during one of these regular Sessions or one of the Summer Sessions

3 The course shall consist of three subjects to be taken in any order and to be selected from the following

Group A—Science of Education, Educational Psychology

Group B—History of Education, Educational Administration

Not more than two of these subjects shall be taken during a regular Session and not more than one during a Summer Session

Candidates who, under Section 2 above, are exempted from attendance during one regular Session or one Summer Session will be exempted also from the instruction and examination in one of the three subjects, provided that the degree be awarded only to candidates who have taken the instruction and examinations in at least one subject in each of the two groups of subjects

4 The examinations shall be held in May at the University of Toronto or in any other locality in the Province chosen by the candidate and approved by the Senate and under a presiding examiner appointed by the Senate, provided the candidate thereat defray the cost of the local examinations The candidate shall send notice not later than the 15th day of March of his intention to take the examinations and of the locality he has chosen for such examinations

5 The fee for registration is \$5 The fee for the Summer Session is \$10, the fee for the regular Session, which shall include the examination and library fees, is \$25 The fee for examination is \$3 for each subject The fee for the degree is \$20 All fees shall be paid to the Bursar with the application for registration or examination, as the case may be

6 The standard for a Pass degree shall be 60 per cent of the marks assigned to each subject The candidate who obtains 60 per cent of the marks of each subject, and 66 per cent of the aggregate of marks, shall be awarded a degree with Second Class Honours The candidate who obtains 60 per cent of the marks of each subject and 75 per cent of the aggregate of marks shall be awarded a degree with First Class Honours On the report of the instructors concerned, a maximum of 40 per cent of the marks in any subject may be assigned to the term work of the candidate

## 7 Subjects of Instruction and Examination

(a) The Science of Education, including a study of the philosophical, ethical, and sociological bases of education (Two papers)

(b) Educational Psychology (Two papers)

(c) The History of Education in Western Europe and North America in modern times, with special reference to Ontario, Great Britain, and the United States (Two papers)

(d) Educational Administration in Great Britain, the United States, France, and Germany, with special reference to the administration and organization of education in Ontario (Two papers)

## DEGREE OF DOCTOR OF PEDAGOGY (D PAED)

The degree of Doctor of Pedagogy (D Paed) will be awarded by the School of Graduate Studies under the following conditions

1 The candidate shall hold an approved degree in Arts or Science or in the applied sciences of Agriculture, Engineering, or Commerce

2 The candidate shall be in attendance at the Ontario College of Education during three regular College Sessions or four Summer Sessions. A High School Assistant's, First Class, or Second Class certificate valid in Ontario, or a regular Course in an approved training school for teachers will be accepted in lieu of the attendance during one of these regular Sessions or one of the Summer Sessions

3 The Course shall consist of the four subjects and a thesis as defined in Sections 5 and 7. The subjects may be taken in any order, provided that not more than two be taken in any regular Session and not more than one in any Summer Session. Candidates who, under Section 2, are exempted from attendance during one regular Session or one Summer Session will be exempted also from the instruction and examination in one of the four subjects

4 The examinations shall be held at such times and under such conditions as to date of application, place of examination, percentages, etc., as obtain with the Bachelor's degree

5 The candidate, after passing the prescribed examinations, shall also submit on or before March 1st a thesis on some educational topic selected with the approval of the Ontario College of Education. In valuing this thesis literary excellence, as well as the discussion of the subject, will be taken into account. After the examiners have reported in favour of the candidate's examinations and thesis, and before the degree of D Paed is conferred, the candidate shall furnish the Secretary of the School of Graduate Studies with twenty-five copies of the thesis

6 The fee for registration, if not already registered in the B Paed Courses, is \$5 The fee for the Summer Session is \$10, that for the regular Session, which shall include the examination and library fees, \$25 The fee for examination is \$3 for each subject The fee for the degree is \$25 All fees shall be paid to the Bursar with the application

7 Subjects of Instruction and Examination

(a) The Science of Education, including a study of the philosophical, ethical, and sociological bases of education (Two papers)

(b) Educational Psychology (Two papers)

(c) The History of Education in Western Europe and North America in modern times, with special reference to Ontario, Great Britain, and the United States (Two papers)

(d) Educational Administration in Great Britain, the United States, France, and Germany, with special reference to the administration and organization of education in Ontario (Two papers)

EDUCATION FELLOWSHIPS

Four fellowships of not less than \$500 each are offered annually to teachers who undertake to pursue graduate work in Education leading to the degree of D Paed or Ph D On the recommendation of the instructors concerned these fellowships may be renewed for a second year Applications for these fellowships should be addressed to the Dean of the Ontario College of Education not later than June 1st of each year





UNIVERSITY COLLEGE



## UNIVERSITY COLLEGE

University College is, since the Federation Act of 1887, the complement, in the system of higher education provided by the State, of the University of Toronto. The State furnishes through University College instruction in those departments of the Arts course in which it does not furnish instruction through the University. The departments are Greek, Latin, Ancient History, English, French, German, Oriental Languages, and Ethics.

*Principal*

MAURICE HUTTON, M A, LL D

*Registrar*

G OSWALD SMITH, M A

*Dean of Women and Head of the Women's Union* MRS M M KIRKWOOD,  
PH D

## UNIVERSITY COLLEGE COUNCIL

### THE PRINCIPAL

PROFESSORS ALEXANDER, CAMERON, MACNAUGHTON, MILNER, NEEDLER,  
TAYLOR, TRACY, WALLACE, WILL

ASSOCIATE PROFESSORS COCHRANE, DALE, DAVIS, DE CHAMP, FAIRLEY,  
HAMILTON, JEANNERET, KNOX, MORAUD, OWEN, SMITH

ASSISTANT PROFESSORS ALLEN, CLAWSON, DUFF, HEDMAN, MCKELLAR

## ENROLMENT OF STUDENTS

The conditions precedent to enrolment in University College are determined by the Council of the College. Every student of the College must either be an undergraduate of the University, or, if he be an occasional student, must satisfy the College Council that he has a sufficient knowledge of the subjects in which he proposes to attend College lectures to do so with advantage.

## DISCIPLINE

The College has full control of its students so far as concerns their attendance upon lectures in the courses provided by the College, and their admission to the University examinations. No student of the College will be received by the University for examination without a certificate from the College that he has complied with its regulations.

## RELIGIOUS KNOWLEDGE

No student will be allowed to take a Religious Knowledge option in any other than University College without the consent of the College Council. Each student who wishes to take a course in Religious Knowledge outside University College must make formal application to the Principal on or before October 25th, stating what course he desires to take,

for what subject the course is an option, in which College the applicant proposes to take this course and for what reason he wishes to take it outside University College

#### LODGING AND BOARD

Lodging and board are obtainable in private boarding houses within convenient distance of the University, or rooms may be rented and board obtained separately. A list of accredited boarding-houses is kept by the Secretary of the University Student Christian Association in Hart House, and by the Head of the University College Women's Union. Students are recommended to consult them with reference to the selection of suitable accommodation. Board may also be obtained at moderate rates at Hart House, and for Women at the Women's Union. For University and College Residences see pages 154 and 156.

#### STUDENT SOCIETIES, ETC

Various societies and associations have been organized in the College for the promotion of Christian effort, social intercourse, literary and scientific activity, and athletics.

The College has a branch of the University Student Christian Association, which has its quarters in Hart House.

The women students also have a College branch of the Student Christian Association.

The University College Literary and Athletic Society is the authorized administrative body of the men students of the College, for which a compulsory fee of \$2.00 a year is collected from each member. This Society officially represents the men students in dealing with the University and College governing bodies. It directs the social and athletic activities of the men students. It also holds debates and literary programmes.

The Women Undergraduates' Association holds a similar position in relation to the women students, a compulsory fee of \$1.00 a year being collected from each member.

A joint Council representing these two bodies deals with matters of common interest to all the students.

The men of each Year have their own elected executive. The Presidents of the four Years are *ex officio* Councillors on the executive of the Literary and Athletic Society.

The women students have similar Year executives.

There is also a Women's Literary Society of the College.

The Players' Guild is an organization devoted to the study of the drama and is open to all students of the College.

Besides the above there are several associations connected with the College departments, such as the Classical Association, the Modern Language Club, etc. There are similar societies connected with the University departments, to which members of the College are eligible.

## REGULATIONS RELATING TO STUDENTS, TERMS AND EXAMINATIONS

1 Students entering University College are required to produce satisfactory certificates of moral character and previous good conduct

2 No student will be enrolled in any year, or be allowed to continue in attendance, whose presence for any cause is deemed by the Council to be prejudicial to the interests of the College

3 Students are required to attend the courses of instruction and examinations in all subjects prescribed for students of their respective standing, and no student will be permitted to remain in the College who persistently neglects academic work

4 The certificate required for admission to the University examinations will not be granted to students who have been reported to the Council for not conforming to the College regulations, or for improper conduct of any kind

5 Students are required to reside, during the period of their attendance on lectures, in houses selected by their parents or guardians or approved by the College Council

6 Men and women students, unless members of the same family, are not permitted to reside in the same lodging-houses

7 All women undergraduates in University College are required to register with the Head of the Union at the beginning of term Her directions as to conduct are to be observed Women undergraduates who are away from home and not in a College Residence must have their boarding-houses approved by her

8 All interference on the part of any student with the personal liberty of another, by arresting him, or summoning him to appear before any unauthorized tribunal of students, or otherwise subjecting him to any indignity or personal violence, is forbidden by the Council Any student convicted of participation in such proceedings will forfeit the certificate required for admission to the University examinations, and will render himself liable to expulsion from the College

9 A student who is under suspension, or who has been expelled from the College or University, will not be admitted to the University buildings or grounds

10 The constitution of every College society or association of students and all amendments to any such constitution, must be submitted for approval to the College Council All programmes of such societies or associations must, before publication, receive the sanction of the Council Permission to invite any person not a member of the Faculty of University College to preside at or address a meeting of any society or association is subject to the consent of the Council Societies and associations are required to confine themselves to the objects laid down in their constitution

11 The name of the College is not to be used in connection with a publication of any kind without the permission of the College Council

12 Certificates of attendance on lectures in any department during an

academic year may be given to occasional students who have been regular in their attendance, and who have also passed the examinations in such department

13 (a) Each Society composed wholly or in part of students registered in University College shall supply the Principal with a copy of its constitution, and the names and addresses of its officers

(b) The Council of University College will sanction dancing only in buildings the use of which it has authorized

(c) In every instance where dancing forms any part of the programme a complete list of the participants who are not University students, with their addresses, shall be supplied by the President of the Society

(d) For each evening meeting attended by both men and women students chaperones must be appointed, the names and addresses of whom shall be submitted one week in advance to Mrs Kirkwood, 79 St George Street

(e) Dancing shall cease by 11 o'clock p.m., unless special permission has been obtained for its continuance beyond that hour

(f) When dancing forms part of a regular meeting of a Society, it shall be limited to the final half-hour

(g) Applications for permission to hold social gatherings are to be addressed in writing to the Convener of Committee on Social Activities at the Post Office, University College

#### AWARDED BY THE COUNCIL OF UNIVERSITY COLLEGE, JUNE, 1923

##### PRIZES

The Squair French Prose Prize	Miss H E Hetherington
The Toronto Alumnae Prize in English Composition of the Second Year	N P H Brown
The Tracy Prize, for Ethics, Fourth Year	No award

##### MEDALS

The Governor-General's Silver Medal for Modern Languages	Miss C P Cohen
McCaul Gold Medal in Classics	L A MacKav

##### SCHOLARSHIPS

The McCaul, for Classics (Junior Matriculation)	Miss H I MacTaggart
The Moss, for Classics (First Year)	R R H Page
The Edward Blake, for Moderns (First Year)	E K Brown
The George Brown, for Moderns (Second Year)	Miss M J MacEwan
The Wm Mulock, for Classics (Second Year)	I W Beare
The Moss, for Classics (Third Year)	No award
The Julius Rossin, for Moderns (Third Year)	{ Miss K M Haljord P Matenko
The John Macdonald, for Philosophy (Third Year)	No award





VICTORIA COLLEGE

## VICTORIA COLLEGE

Victoria College was founded by resolution of the Conference of the Methodist Church in Canada, held in Kingston in August, 1830. The institution was opened for students at Cobourg on the 18th of June, 1836, with the Rev. Matthew Richey, M.A., as Principal. On the 12th of October, 1836, letters patent were issued by His Majesty King William IV, incorporating the institution as a seminary of learning for the Province of Upper Canada, under the name of "Upper Canada Academy."

In 1841 the Parliament of the United Provinces of Upper and Lower Canada, being now first constituted by Acts of the Imperial Parliament with power to grant such a charter, at its first session held in the city of Kingston, passed an Act extending the charter of the Academy under the name and style of "Victoria College, with power and authority to confer degrees of Bachelor, Master and Doctor of the various Arts and Faculties", which Act was assented to by the Governor-General on the 27th of August, 1841.

On the 21st of October, 1841, the Rev. Egerton Ryerson, having been appointed principal, opened the first college session under the enlarged charter.

In the year 1844 the Rev. A. McNabb, D.D., succeeded the Rev. Dr. Ryerson as Principal, and occupied the office until 1849. At the close of his term the number of students in the College was 140.

In 1850 the Rev. S. S. Nelles, M.A., was appointed Principal, and addressed himself to the task of organizing and enlarging the College to the status and work of a University. In the year 1854-55 the Faculty of Medicine was added and established in Toronto. In 1860 the Faculty of Law was added, and in 1871 the Faculty of Theology.

In the year 1883-84 a Commission, appointed by the General Conference of the Methodist Church, arranged for the consolidation of Albert College, Belleville, with Victoria College, Cobourg, and legal effect was given to this consolidation by Act of the Legislature of Ontario, 47 Vict., chap. 93.

The corporate name was by this Act changed to "Victoria University." The government of the University was vested in a Board of Regents, Chancellor, Vice-Chancellor and Senate. To these bodies was given power to affiliate outlying colleges, and full university powers in all faculties were continued. The Rev. S. S. Nelles, D.D., LL.D., as President, was *ex officio* first Chancellor, and William Kerr, M.A., LL.D., K.C., Senator, was elected first Vice-Chancellor.

Under the provisions of the present charter the following colleges are affiliated in Arts with Victoria University —Albert College, Belleville, the Ontario Ladies' College, Whitby, Alma College, St Thomas

In 1887, the Rev S S Nelles, D D, LL D, died, and the Rev N Burwash, S T D, LL D, was appointed President and Chancellor

On the 12th of November, 1890, under the provisions of the Revised Statutes of Ontario, chap 230, and the Acts amending the same, Victoria University was, by proclamation of the Lieutenant-Governor, federated with the University of Toronto

On the first of October, 1892, the Faculty of Victoria College began work in the present Main Building in Queen's Park, Toronto, and the federation of the Universities was practically consummated. The Faculty of Arts then assumed the work and relation of a College in the University of Toronto, providing instruction in all subjects assigned by the Federation Act to University College. In other subjects the students of Victoria College attend the lectures and laboratory practice of the University of Toronto, and receive their degrees under the statutory regulations of its Senate

By the provisions of the Federation Act of 1887 the President of Victoria College, a representative of the Senate of Victoria College, and five representatives of the graduates in Arts, are members of the Senate of the University of Toronto, and the graduates and undergraduates of Victoria College are granted the same standing and privileges in the University of Toronto. By the provisions of the University Act of 1903, three members of the Arts Faculty of Victoria, chosen by that body, are sent as additional representatives to the Senate of the University of Toronto, and all the permanent members of the Arts Staff of Victoria as well as one member of the theological staff chosen by that Faculty are members of the Council of the Faculty of Arts of the University of Toronto

At Federation five hundred and seventy-seven graduates of Victoria College were admitted to standing and privileges of the degree of B A in the University of Toronto, two hundred and thirty-one to those of M A, nine hundred and sixty-three to those of M D, one hundred and twenty-five to those of LL B, and forty to those of LL D

By the University Act of 1901 the electoral body in Convocation of Victoria College was made permanent, and was enlarged to include all graduates in Arts of the University of Toronto since 1892 who at graduation were enrolled in Victoria College

The electoral body of Victoria College in the Convocation of the University of Toronto now consists of about 2340 graduates in Arts, besides the graduates in Law and Medicine, who form one body with those of the University of Toronto



In 1913, the Rev N Burwash, S T D, LL D, retired from the position of President and Chancellor and the Rev R P Bowles, M A, D D, LL D, was appointed in his stead

The following Benefactions have been given to Victoria University for the endowment of chairs and erection of buildings —

Mr and Mrs Edward Jackson for endowment of chair, \$30,000

Wm Gooderham, Esq, for building and endowment, \$200,000

The Honourable Geo A Cox and Mrs Cox, for endowment of two chairs, \$100,000

Hart A Massey, Esq, for building and endowments, \$960,000

The Honourable John Macdonald, for building for federation purposes, \$25,000

W E H Massey, Esq, for endowment, three hundred shares of Massey-Harris Stock

Sir Joseph Flavelle, Bart, LL D, for endowment, \$30,000

Andrew Carnegie, Esq, for library building, \$50,000

Cyrus A Birge, Esq, for library endowment, \$50,000

From these and other sources the following Chairs have been endowed —

The Edward Jackson Chair in Biblical and Systematic Theology

The Ryerson Chair in Ethics and Evidences of Christianity

The Nelles Chair in Ancient History

The William Gooderham Chair in English Literature

The Eliza Gooderham Chair in French Literature

The H A Massey Chair in the English Bible

The Eliza Phelps Massey Chair in Old Testament Exegesis

The Geo A Cox Chair in New Testament Exegesis

The Margaret Cox Chair in Homiletics and Pastoral Theology

The W E H Massey Chair in Greek Language and Philosophy

The J W Flavelle Chair in Hebrew

A special endowment for the Presidency of the College

The John Macdonald Chair in Latin

The buildings, library, furniture and grounds of Victoria College are now valued at \$1,184,264 39, and the endowment and prize fund totals \$1,282,662 87

GOVERNMENT OF VICTORIA COLLEGE

BOARD OF REGENTS

*Representatives of the General Conference*

REV S D CHOWN, D D , LL D  
 REV J W GRAHAM, B A , D D , LL D  
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 REV W J SMITH, B A  
 REV TREVOR H DAVIES, D D  
 REV R N BURNS, B A , D D  
 REV W G CLARKE, B A  
 A E AMES, ESQ  
 C D MASSEY, ESQ , LL D  
 H H FUDGER, ESQ  
 HON N W ROWELL, LL D , K C

*Representatives of the Alumni*

HON J J MACLAREN, M A , LL D , D C L , *Vice-Chancellor*  
 MRS G J BLEWETT, B A  
 G H LOCKE, M A  
 REV C W BISHOP, B A  
 F N G STARR, C B E , M D , C M , F A C S  
 PROFESSOR C T CURRELLY, M A  
 MRS R G DINGMAN, B A  
 J R L STARR, B A , LL B , K C

*Co-opted by General Conference and Alumni Representatives*

REV R P BOWLES, M A , D D , LL D , *Chancellor*  
 W E RUNDLE, ESQ  
 E R WOOD, ESQ  
 G H WOOD, ESQ  
 F H DEACON, ESQ  
 A R FORD, B A  
 LADY FLAVELLE  
 H C COX, ESQ

## THE SENATE

REV R P BOWLES, M A , D D , LL D , *Chancellor*  
 HON MR JUSTICE MACLAREN, M A , LL D , *Vice-Chancellor*  
 REV S D CHOWN, D D , *General Superintendent of the Methodist Church*  
 A P COLEMAN, M A , PH D (Bresl ) LL D , F R S , *Honorary Professor*  
 PROFESSORS OF THE FACULTY OF ARTS  
 PROFESSORS OF THE FACULTY OF THEOLOGY  
 MEMBERS OF THE BOARD OF REGENTS

*Representative of Albert College*

F W MERCHANT, B A , D PAED

*Representative of the Ontario Ladies' College*

REV. F S FAREWELL, B A

*Representative of Alma College*

REV P S DOBSON, M A

*Representatives of the Alumni*

REV W B CREIGHTON, B A , D D  
 H W GUNDY, B A  
 REV J H ARNUP, B A  
 H W AIKINS, B A , M D  
 MRS G H DUFF, B A  
 MISS E F ADAMS, B A  
 F H CLARKE, B A  
 F C COLBECK, B A

## ADMINISTRATIVE OFFICIALS

<i>President</i>	REV R P BOWLES, M A , D D , LL D
<i>Dean of the Faculty of Arts</i>	J C ROBERTSON, M A
<i>Dean of the Faculty of Theology</i>	REV J F McLAUGHLIN, B A
<i>Registrar</i>	C E AUGER, B A
<i>Librarian</i>	A E LANG, M A
<i>Bursar</i>	REV F LOUIS BARBER, M A , PH D
<i>Accountant</i>	W J LITTLE, B A
<i>Secretary of the Faculty</i>	N W DeWITT, B A , PH D
<i>Secretary of the Faculty of Theology</i>	REV W A POTTER, M A , B D
<i>Dean of Residence</i>	C V MASSEY, M A
<i>Senior Tutor in Residence</i>	G M SMITH, M A
<i>Dean of Women Students</i>	MISS M E T ADDISON, B A.
<i>Treasurer</i>	W E RUNDLE, Esq.

GENERAL REGULATIONS AND ANNOUNCEMENTS  
FOR STUDENTS IN ARTS

## ADMISSION

Students are admitted to registration in the Faculty of Arts on having passed the Matriculation examination prescribed by the University of Toronto, or on giving the Faculty satisfactory evidence of their ability to pursue the course of study proposed. They are required to observe the general regulations of the University of Toronto and of Victoria College in regard to attendance on lectures and examinations.

## EXAMINATIONS

No student may present himself for any University examination subsequent to matriculation without having complied with all the requirements of his college affecting his admission to such examination.

## OCCASIONAL STUDENTS

Occasional students may be admitted to lectures on application.

Certificates of attendance on lectures in any department during an academic year may be given to occasional students who have been regular in their attendance and who have passed the examinations in such department.

## TERMS

The term will not be allowed to students who have been reported to the President by any Professor as neglecting to attend the required lectures, or who have not conformed to the statutes and regulations of the College.

## INSTRUCTION

Instruction in the various subjects of the Arts course is given by the Arts Faculty of the University of Toronto and the Arts Faculty of Victoria College. Instruction in the Religious Knowledge options is given by the Theological Faculty of Victoria College.

## COLLEGE EXAMINATIONS

Students are required to attend all examinations prescribed by the Professors and Lecturers in their departments.

Prizes and honours are awarded on the recommendation of the Professors and Lecturers, in accordance with the requirements prescribed by them in their several departments.

## FEES

The fees required to be paid by students enrolled in Victoria College are those prescribed by the Governors of the University of Toronto. Enrolment fees are paid to the Fees Clerk of the College, all other fees are paid to the Bursar of the University of Toronto.

## DISCIPLINE

All students enrolled in Victoria College are subject to the regulations as to discipline prescribed by the Council of the Faculty of Arts of the University of Toronto

Students are required to attend the lectures, as well as the examinations on all subjects necessary for students of their course and standing. Compliance with this rule will be required as a condition of admission to examination by the University unless dispensation has been obtained

All interference with the personal liberty of the student, by arresting him, or summoning him to appear before any unauthorized tribunal of students, or otherwise subjecting him to any indignity or personal violence is forbidden by the Faculty. Any student convicted of participation in such proceedings will forfeit the certificate required for admission to the University examinations, and will render himself liable to expulsion from the College

## RELIGIOUS SERVICES

Morning prayers are held daily except Saturday and Sunday in the Chapel, at which all students are expected to be present. Other religious services will be held at suitable times, to which all students are cordially invited

## LIBRARIES, MUSEUMS, ETC

The students of Victoria College, besides having the use of the University of Toronto Library and the various Laboratories of the University, have free access to the Victoria University Library, which consists of a working collection of 30,000 bound volumes on the English, Latin, Greek, French and German languages and literatures, History, Philosophy and the various departments of Theology

The College has loaned to the Royal Ontario Museum its mineralogical, palaeontological and biological collections, as well as its collection of Egyptian and Indian relics

## STUDENTS NOT IN RESIDENCE

All students who do not reside in any one of the Residences or who do not reside with their parents or with such persons as their parents or guardians direct, are recommended to board and lodge in such houses as are approved by the President of the College. A carefully selected list of boarding-houses, where board and rooms may be obtained, is prepared each year by the Student Christian Association. Students will be expected to observe proper hours and to maintain the conduct of Christian ladies and gentlemen

## THE RESIDENCE FOR MEN STUDENTS

The Residence buildings comprise one hundred and sixteen bed-sitting rooms, and in each house there is a Common-Room with a fire-place on the ground floor, as well as a bedroom and sitting-room for the Tutor in Residence. About fifteen bedrooms have fire-places, and in one house there are two suites, each consisting of a bedroom and a study.

The Hall, known as Burwash Hall, is capable of seating 200 persons at meals. Used as a hall for lectures, it will seat about 700.

All inquiries should be addressed to the Dean of Residence, Victoria College, Toronto, from whom can be obtained further information.

## THE RESIDENCES FOR WOMEN STUDENTS

The Residences for Women Students, Annesley Hall and other houses, furnish residence for one hundred and eleven women students of Victoria College.

Applications for rooms must be accompanied by a deposit fee of \$10, which will be refunded if the application is withdrawn before September first. Fees are payable half on the first of October and half on the first of February.

Further information may be obtained by writing to the Dean of Women Students, Annesley Hall, Queen's Park, Toronto.

## MEDALS, SCHOLARSHIPS, AND PRIZES, 1923

## FACULTY OF ARTS

Awarded by the Senate of The University of Toronto (those marked with an asterisk) and by the Senate of Victoria College

## FOURTH YEAR

*The Governor-General's Gold Medal	F G Ward
* <i>Provinci accessit</i>	Miss R V H Kendrick
*The James London Gold Medal (Mathematics and Physics)	Miss R Carnahan
*The Quebec Bonne Entente Prize	H W Hilborn
*The 1851 Exhibition Science Research Scholarship	W L Webster
*The George Paxton Young Memorial Fellowship in Philosophy	S J Mathers
The Governor-General's Silver Medal	W H, Trethewey
The Edward Wilson Gold Medal in Classics	Miss R V Kendrick
The J J Maclaren Gold Medal in Moderns	H W Hilborn
The S H Janes Silver Medal in Moderns	Miss M G Bailey
The S H Janes Silver Medal in Philosophy, English and History	C C Oke
The Reginald Heber Manning Jolliffe Gold Medal in English	Miss L M Coburn
The E J Sanford Gold Medal in Philosophy	S J Mathers
The S H Janes Silver Medal in Philosophy	H J S Howey
The George A Cox Gold Medal in Science	G R Balfour
The Gold Medal in Orientals	F G Ward
The Gold Medal in Mathematics and Physics	Miss R Carnahan
The S H Janes Silver Medal in Mathematics and Physics	W L Webster
The Gold Medal in Household Economics	Miss M E Craig
The S H Janes Silver Medal in Household Economics	Miss K G Crosby
The S H Janes Silver Medal in Household Science	Miss M A Caldwell
The W J Robertson Prize in Canadian Constitutional History	R G Start

## THIRD YEAR

*The A A S Scholarship in Mathematics and Physics (Third Year)	E H Graham
*The Ramsay Scholarship in Physics (1922-23) (Third Year)	Miss R Carnahan
The George Dennis Morse Scholarship	Miss G H McKay
The Reginald Heber Manning Jolliffe Scholarship in English	N J Endicott

The George John Blewett Scholarship in Philosophy	H Moores
A Hamilton Fisk Biggar Scholarship in Classics	Miss I E Irwin
A Hamilton Fisk Biggar Scholarship in the Pass Course	R F Trewin
The Hodgins Prize in Pass English	Miss K E Elliott

## SCHOLARSHIPS

## SECOND YEAR

*The Edward Blake Scholarship in Biological and Medical Sciences (Second Year)	W J B Dickson
*The John Macdonald Scholarship in Philosophy	C G Park
A Hamilton Fisk Biggar Scholarship in Household Economics	Miss E A Jerome
The Essa Van Dusen Dafoe Scholarship in French	Miss A G Nelson
The Webster Prize in Pass English (Second Year)	Miss C I Davidson
The Regents' Prize in English Essays (Second Year)	{ 1 Miss R I Jenking 2 D J Creighton
The Robert Johnston Prize in Pass Hebrew (Second Year)	J M Deck

## FIRST YEAR

A Hamilton Fisk Biggar Scholarship in English and History	Miss M E H Adams
A Hamilton Fisk Biggar Scholarship in Philosophy, English and History	J A Irving
A Hamilton Fisk Biggar Scholarship in Household Economics	Miss S M Hughson
The A P Misener Scholarship in Oriental Languages (Eligible according to examination in the order named)	{ 1 N H Hall 2 R M Dingwall 3 A E Larke
*The First Alexander T Fulton Scholarship in Natural and Physical Sciences (First Year)	Miss D F Forward
The W E H Massey Scholarship (Classics)	E S Livermore

## ALL THE YEARS

The Lincoln Hutton Scholarship in English Essays	Miss D E Toye
The Lily Denton Keys Prize in English Essays	Miss K M Davies

Awarded by the Alumni Association of the University of Toronto	
The Moss Scholarship	J G Endicott

## JUNIOR MATRICULATION, 1922

The Flavell Scholarship (Classics)	W P Horwood
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## AFFILIATED COLLEGES

## ALBERT COLLEGE

BELLEVILLE, ONT

FOUNDED 1854

## FACULTY

THE REV E N BAKER, M A , D D , *Principal*  
ELLA GARDINER, B A , *Lady Principal*  
T C McMULLEN, M A , PH D , *Dean of Residence.*  
REV S F MAINE, M A , B D  
F R BAMFORTH, M A  
W. C SMITH, B A  
MINNIE PARKS  
A H N SNELGROVE  
VICTORIA BURLEIGH  
V P HUNT, A A G O  
S M ANGLIN, B A  
BESSIE HANDLEY, A T C M  
KATHRYN SISSON, A T C M  
JESSIE TUTE  
BARBARA CRAWFORD  
MRS JEAN BAKER

## COURSES OF STUDY

- I Collegiate Course, embodying elective undergraduate studies
- II Junior and Senior Matriculation in Arts, Engineering, Law, Medicine and Theology
- III Teachers' Course, to prepare for teachers' examinations
- IV Preliminary Course, as prescribed by the General Conference of the Methodist Church
- V Depts of Religious Education
- VI Business College Course, comprising Theoretical and Practical Bookkeeping, Practical English, Shorthand and Typewriting
- VII Musical Course in Musical Academy, comprising Pianoforte Course, Organ Course, Post Graduate Course and Voice Culture
- VIII Courses in Elocution, Physical Culture and Deportment
- IX Course in Fine Arts, embracing Painting, Drawing, etc
- X Alexandra Ladies' College Course, leading to the M L A and M M L

ALMA COLLEGE  
ST THOMAS, ONT  
OPENED, 1881

ADMINISTRATIVE OFFICERS

SAMUEL DWIGHT CHOWN, M A , D D , LL D	<i>President of Board</i>
W F THOMAS	<i>Chairman of Executive</i>
P S DOBSON, M A (Oxon )	<i>Principal</i>
ROBERT I WARNER, M A , D D	<i>Principal Emeritus</i>
OLIVE ZIEGLER, B A	<i>Dean of Residence</i>
MRS P A ALLISON	<i>Nurse</i>

LITERARY DEPARTMENT

OLIVE ZIEGLER, B A	<i>Religious Education, English</i>
P S DOBSON, M A	<i>Latin</i>
KATHLEEN BOWLBY, B A	<i>Mathematics, Science</i>
MARGARET THOMSON	<i>Preparatory Studies</i>
MRS P S DOBSON, B A	<i>French, German</i>
AGNES MCKERCHER, M A	<i>History, English</i>

MUSIC

THOMAS MARTIN, <i>Director</i>	<i>Pianoforte, Concert Solos</i>
STANLEY OLIVER	<i>Organ, Harmony, Choral, Vocal</i>
HARRIETT B JOLLIFFE, A A C M	<i>Pianoforte</i>
CLETA FORD	<i>Pianoforte</i>
GURLI HAUSCH	<i>Violin</i>
MARGARET MACFIE	<i>Pianoforte</i>
NANCY POOLE	<i>Violin</i>

FINE ARTS

EVA ST THOMAS SMITH	<i>Painting, Modelling and Sketching</i>
S M MCKAY	<i>China Painting</i>
OLIVIA TILTON	<i>Artcraft</i>

COMMERCIAL SCIENCE

CASSIE McLENNAN	<i>Bookkeeping, Phonography, Typewriting and</i>
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## ELOCUTION AND PHYSICAL EDUCATION

MAY BELLE ADAMS  
IVEAGH MUNROE

*Reading, Expression*  
*Physical Education*

## \*HOUSEHOLD SCIENCE

ANNE FLEMING

*Cookery, Dietetics, Sewing*

## DIPLOMA COURSES

- (a) M E L , embracing University Junior and Senior Matriculation with options and additional subjects in Bible Study, English, etc
- (b) Music (Piano, Organ, Voice or Violin).
- (c) Fine Art
- (d) Elocution and Physical Education
- (e) Commercial and Shorthand
- (f) Household Science



TRINITY COLLEGE

## TRINITY COLLEGE

### I TRINITY COLLEGE, WITH RESIDENCE FOR MEN

J A WORRELL, K C, M A, D C L, *Chancellor*  
THE REV C A SEAGER, M A, D D, LL D, *Vice-Chancellor and Provos.*  
L C A HODGINS, M A, *Dean of Residence*  
J N WOODCOCK, M A, *Registrar*  
W A KIRKWOOD, M A, Ph D, *Dean of the Faculty of Arts*  
REV S A B MERCER, M A, Ph D, D D, *Dean of the Faculty of Divinity*  
R E L KITTREDGE, M A, *Librarian*  
REV S CHILDS, B A, B D, *Extension Secretary and Clerk of Convocation*  
SYDNEY H JONES, Esq, *Bursar and Secretary of Corporation*

### II ST HILDA'S COLLEGE—RESIDENCE FOR WOMEN

MISS M CARTWRIGHT, B A, *Principal and Dean of Women Students*  
MISS STRACHAN, *Assistant*  
MISS COTTERILL, *Assistant*  
SYDNEY H JONES, Esq, *Bursar*

Trinity College, which entered into federation with the University of Toronto on the first day of October, 1904, was founded by the Honourable and Right Reverend John Strachan, D D, LL D, first Bishop of Toronto, one of the founders, and at one time President, of King's College. It was established, after the secularisation of King's College in 1850, for the purpose of combining religious instruction with a liberal education.

In 1851 Trinity College was incorporated by the Legislature of Canada. In 1852 a Royal Charter conferred upon it University powers, which were exercised in all Faculties down to 1904, under the style of the University of Trinity College. Since 1904 Trinity College has conferred degrees only in the Faculty of Divinity.

For a certain period state aid was granted to it in common with the other Universities of the Province, but this was subsequently withdrawn. In 1874 the question of federation was mooted, but no serious attempt at a solution was made till about the year 1885, and it was not till nearly twenty years later that satisfactory terms of federation were finally concluded.

Under the Federation Agreement, the degrees in Arts are conferred by the University of Toronto, the instruction being given by Trinity College in all College subjects, and by the University in the remaining subjects of the Arts curriculum, and Trinity College students having access without extra fees to the University classes and laboratories. In the Faculty of Divinity, Trinity College continues to exercise the functions of an inde-

pendent University, having no relation to the University of Toronto in respect of degrees in this Faculty

St Hilda's College was founded in 1888 by the Rev Dr Body, the second Provost of Trinity College, to provide a residence for the women students of Trinity College, together with instruction in certain subjects of the Arts course. Later such instruction was discontinued in favour of complete co-education, St Hilda's continuing to be the residence for women students of Trinity College.

Religious instruction for all its students in Arts having been one of the chief reasons for the foundation of Trinity College, this still remains one of its distinguishing features, the federation agreement with the University of Toronto preserving this right in perpetuity to all students of Trinity College.

Residence is another advantage offered by the College, accommodation being provided for about 100 men students. Here they come into close contact daily with one another and with the members of the staff, both resident and non-resident. In this way one very important element in education is provided.

The women students attend lectures with the men, and reside in St Hilda's College, which is conveniently situated in the Trinity College grounds, and offers to women all the advantages which are offered to men by the residence of Trinity College. All the women students, resident and non-resident, come under the supervision of the Dean of Women Students, Miss M. Cartwright, B.A., who is also Principal of St Hilda's College. St Hilda's Lodge, which adjoins the main building, is under the immediate charge of Miss Strachan. These two buildings provide residence accommodation for about fifty students.

On week days both men and women attend the morning and evening services of the Chapels of their respective colleges. On Sundays they attend the Trinity College Chapel together, this latter regulation applying to residents and non-residents alike.

Though the College belongs to the Church of England, it is open without religious tests to members of other communions. They are allowed to absent themselves from the Chapel services on Sundays on stating to the Provost their intention to attend a church of their own denomination, on the understanding that they will present a certificate of attendance, so as to satisfy the College regulations in this respect.

Members of other communions are not required to take the courses of study prescribed in the Church Catechism and the Prayer Book, but are allowed to substitute for them courses in Church History, the Evidences of Christianity, Christian Ethics, or New Testament Greek.

All students are required to keep term in lectures and chapels, and upon enrolling are placed under promise to obey the rules and regulations of the College.

Tuition (or registration) fees for regular and special students are the same as are paid in the other Colleges and are payable to the Bursar of Trinity College

Particulars as to fees for board and room, etc., may be obtained by applying to the Provost or the Registrar

#### HAZING

Every student of Trinity College is required to sign the following declaration—

"I do solemnly promise, that so long as I remain a student of this College—

1. I will discountenance all proceedings commonly known as hazing and will do my utmost to promote a healthy tone of feeling against them

2 And, in particular, I will not interfere in any way with the personal liberty of any student, as, for example, by entering into, or remaining in, his room against his will, and I will not subject any student, or countenance his being subjected, to any indignity of any kind whatsoever

These promises I make, fully understanding that any violation of them will render me liable to immediate expulsion from the College "

#### UNIVERSITY DISCIPLINE

Every regular student of Trinity College must conform to the regulations of the University when in attendance upon University lectures and examinations. He must also pay the Hart House, Library, and other University fees to the Bursar of the University

#### KEEPING TERMS

The College regulations require regular attendance at Lectures, 80 per cent of Lectures being necessary to the keeping of term

Students in Arts who fail to keep their term, or are regarded as being otherwise unsatisfactory in respect of their work or conduct, will not be certified to the Registrar of the University for admission to the Annual Examination of the University in May

#### NON-MATRICULATED STUDENTS

Students may be admitted to College by the Provost without matriculation if he deems them to be sufficiently advanced in their studies to profit by the lectures

## GOVERNMENT OF THE COLLEGE

By the provisions of the Royal Charter, the government of the University of Trinity College is vested in the Corporation, which body, by an Act of the Legislature of the Province of Canada (15 Vict ch 32), is composed of 1 The Bishops of the six Dioceses into which the original Diocese of Toronto has been divided, 2 The Trustees, 3 The Council

The Council is made up of the following classes of members

## EX OFFICIO MEMBERS

The Chancellor and ex-Chancellors of the University of Trinity College, the Provost, the Deans of Residence, Arts, and Divinity, the Registrar of Trinity College, the Chairman of Convocation, and the Headmaster of Trinity College School, Port Hope

## MEMBERS NOMINATED

By the Synod of each Diocese of the Province of Ontario, two clergymen and two laymen

By the Bishops of Ottawa, Algoma, Ontario, Huron, Toronto and Niagara, four members each, representing their respective Dioceses, or two only, if the Synod of the Diocese elects members

By each Medical, Musical, or Theological College affiliated with the University of Trinity College, one member

## MEMBERS ELECTED

By the College Committee, one of the professors

By the graduates in Arts and Divinity who are members of Convocation (see below) eight members, to hold office for four years, two retiring annually

By the graduates in Law two members, to hold office for two years, one retiring annually

By the graduates in Medicine who are members of Convocation two members, to hold office for two years, one retiring annually

By the associate members of Convocation (see below) two members, to hold office for two years, one retiring annually

By the sustaining members of Convocation, two members, to hold office for two years, one retiring annually

By the whole Corporation ten members, elected for four years, of whom at least two shall be engaged in educational work in the High School system of the Province



## CHANCELLOR

J A WORRELL, K C, M A, D C L

## VICE-CHANCELLOR AND PROVOST

THE REV CHARLES ALLEN SEAGER, M A, D D, LL D

## THE CORPORATION

## THE BISHOPS

THE MOST REVEREND THE LORD ARCHBISHOP OF ALGOMA

THE RIGHT REVEREND THE LORD BISHOP OF HURON

THE RIGHT REVEREND THE LORD BISHOP OF TORONTO

THE RIGHT REVEREND THE LORD BISHOP OF NIAGARA

THE RIGHT REVEREND THE LORD BISHOP OF OTTAWA

THE RIGHT REVEREND THE LORD BISHOP OF ONTARIO

## TRUSTEE

THE HONOURABLE FEATHERSTON OSLER, K C, D C L

## COUNCIL

*I Ex Officio Members*

THE CHANCELLOR OF THE UNIVERSITY OF TRINITY COLLEGE, K C, M A, D C L THE REVEREND THE PROVOST OF TRINITY COLLEGE, M A, D D, LL D, THE DEAN OF RESIDENCE, M A, THE REGISTRAR OF THE UNIVERSITY OF TRINITY COLLEGE, M A, THE DEAN OF THE FACULTY OF ARTS, M A, D D, THE REVEREND THE DEAN OF THE FACULTY OF DIVINITY, M A, Ph D, D D, W H PEPLER, M D, C M, L R C P, CHAIRMAN OF CONVOCATION, THE REVEREND F GRAHAM ORCHARD, M A (*Cantab*), D D, Headmaster of Trinity College School, Port Hope

*II Representative Elected by the Staff*A H YOUNG, D C L, *Professor of German**III Elected by the Corporation*

THE REV PROFESSOR C J S BETHUNE, M A, D C L, Toronto

MAJOR-GEN SIR HENRY M PELLATT, C V O, D C L, Toronto

SIR EDMUND OSLER, Toronto

PETER PERRY, M A, Fergus

J A HOUSTON, M A, Toronto

KIRWAN MARTIN, M A, Hamilton

A H CAMPBELL, B A (*Tor*), Toronto

ELMES HENDERSON, M A, Toronto

LIEUT-COL HENRY BROCK, D C L, Toronto

JOHN CATTO, Esq, Toronto

IV *Nominated by the Archbishop of Algoma*

THE VENERABLE GOWAN GILLMOR, D D , Sault Ste Marie, *Archdeacon of Algoma*

THE REVEREND CANON PIERCY, Sturgeon Falls

THE REVEREND CANON BURT, L TH , Parry Sound

THE REVEREND F H HINCKS, M A , Haileybury

V *Nominated by the Bishop of Huron*

THE REVEREND CANON C R GUNNE, M A , London

VI *Elected by the Synod of Huron*

HIS HONOUR JUDGE HARDY, Brantford

THE VENERABLE J B FOTHERINGHAM, B A , Brantford, *Archdeacon of Elgin*

VII *Nominated by the Bishop of Toronto*

THE REVEREND CANON PLUMPTRE, M A , Toronto

THE REVEREND CANON RIGBY, M A , LL D , Port Hope

THE HONOURABLE MR JUSTICE ORDE, Toronto

VIII *Nominated by the Bishop of Niagara*

THE VERY REVEREND D T OWEN, L TH , D D , Hamilton, *Dean of Niagara*

W M BRANDON, B A , B C L , Hamilton

IX *Elected by the Synod of Niagara*

THE REVEREND R H FERGUSON, M A , B D , Guelph, E T LIGHTBOURN, Esq, Oakville

C S SCOTT, Esq, Hamilton, THE REVEREND CANON BROUGHALL, M A , St Catharines

X *Nominated by the Bishop of Ottawa*

THE REVEREND G A BRUNET, B A , Pakenham

THE REVEREND H A E CLARKE, M A , Bell's Corners

XI *Elected by the Synod of Ottawa*

THE REVEREND CANON BEDFORD-JONES, M A , D D

THE REVEREND J H DIXON, M A , B D , Ottawa

CHAS MORSE, K C , D C L , Ottawa

J S L MCNEELEY, M A , Perth

XII *Nominated by the Bishop of Ontario*

THE VERY REVEREND G L STARR, M A , D D , Kingston, *Dean of Ontario*

THE VENERABLE G R BEAMISH, M A , Belleville, *Archdeacon of Ontario*

XIII *Elected by the Synod of Ontario*

THE REVEREND J H H COLEMAN, M A , Napanee

THE REVEREND JOHN LYONS, M A , R D , Picton

J B WALKER, K C , Chancellor of the Diocese, Kingston

PHILIP DU MOULIN, Esq , Kingston

XIV *Nominated by Trinity Medical College*

J H McCONNELL, M D , C M , Toronto

XV *Nominated by the Ontario Medical College for Women*

R B NEVITT, B A , M D , C M , Toronto

XVI *Nominated by the Toronto Conservatory of Music*

ALBERT HAM, Mus Doc , F R C O , Toronto

XVII *Elected by Convocation*(a) *Graduates in Arts and Divinity*

THE REVEREND CANON J S BROUGHALL, M A , Toronto, and G C HEWARD, M A , Toronto, to hold office to 1924

THE REVEREND R C BLAGRAVE, B A , D D , Peterborough, and R J READE, M A , M D , C M , Toronto, to hold office to 1925

R B BEAUMONT, M A , Toronto, and

THE REVEREND WALTER H WHITE, M A , Toronto, to hold office to 1926

COL C S MacINNES, C M G , K C , M A , Toronto, and THE REVEREND CANON PLUMMER, L TH , Toronto, to hold office to 1927

(b) *Graduates in Law*

D T SYMONS, K C , B C L , Toronto, to hold office to 1924

THE HONOURABLE MR JUSTICE HODGINS, Toronto, to hold office to 1925

(c) *Graduates in Medicine*

GEO STEWART CAMERON, M D , C M , Peterborough, to hold office to 1924

FRED LE M GRASEIT, M B , C M , Toronto, to hold office to 1925

(d) *Elected by Associates of Convocation*

F GORDON OSLER, Esq , Toronto, to hold office to 1924

JOHN C WEDD, Esq , to hold office to 1925

(e) *Elected by Sustaining Members of Convocation.*

FRED W FEE, Esq , Ottawa, to hold office to 1924

C M BALDWIN, M A , Toronto, to hold office to 1925

XVII *Elected by the Alumnae Association of St Hilda's College*

M McLAUGHLIN, Esq  
MAJOR G B STRATHY

SECRETARY AND BURSAR

SYDNEY H JONES, Esq

HONORARY TREASURER

MAJOR-GEN SIR H M PELLATT, C.V.O., D.C.L.

AUDITORS

REV C A SEAGER (*honorary*)  
MESSRS WELCH, CAMPBELL and LAWLESS, *Chartered Accountants*

COMMISSION ON POLICY AND BUILDINGS

COL H C OSBORNE, C.M.G., Ottawa, <i>Chairman</i>	
GERALD R LARKIN, Esq., Toronto, <i>Vice-Chairman</i>	
VAUGHAN MACLEAN HOWARD, Esq., Toronto, <i>Secretary</i>	
The Chancellor	Sydney H. Jones, Esq
Chairman of Convocation	Angus Macdonald, M.A.
The Provost	Wilmot L. Matthews, Esq
Rev T C S Macklem, M.A., D.D.	George W. Morley, B.A., LL.B.
Major-Gen Sir Henry Pellatt	W. A. Child, Esq (Hamilton)
Prof A H Young, M.A., D.C.L.	C. S. Scott, Esq (Hamilton)
Prof L C A Hodgins, M.A.	F. W. Fee, Esq (Ottawa)
Col C S MacInnes, C.M.G.	Major-General J. T. Fotheringham,
Lt-Col Henry Brock	C.M.G.
Major G B Strathy	Dr Graham Campbell
Dr R J Reade	Dr D J Goggin
D T Symons, K.C., B.C.L.	F Gordon Osler, Esq
A H Campbell, B.A.	

CONVOCATION

Convocation, as at present organized, consists (in addition to the Chancellor, the Provost, the Vice-Provost, and the Professors of Trinity College) of all graduates who pay an annual fee of five dollars or upwards. It has been placed by the Corporation in the position of a Standing Committee of that body, and its members are in this way enabled, through their representatives, formally to lay their resolutions before the governing body of the University. Moreover, it is represented by fourteen members on the Corporation. (See above.) The Chairman is *ex officio* a member of the Corporation.

An annual meeting for the transaction of business is held every year in the Michaelmas Term

Friends of the University who are not graduates may become associate members of Convocation by the same annual payment of five dollars or upwards. Subscribers of a hundred dollars and upwards annually are known as sustaining members.

Associate and Sustaining Members have the right of speaking and of voting at annual and other meetings of Convocation. They also elect annually four representatives to the Corporation.

The Chancellor of the University of Trinity College is elected for a period of five years by the graduate members of Convocation in good standing.

The Caput of Convocation, before which degrees are passed and conferred, consists of the Vice-Chancellor and four members of Convocation, to be elected by Convocation at the annual November meeting.

Since federation the only degrees conferred by the University of Trinity College are those in the Faculty of Divinity.

#### CHAIRMAN OF CONVOCATION

W. H. PEPLER, M.D., C.M., L.R.C.P.

#### CLERK OF CONVOCATION

THE REVEREND S. CHILDS, B.A., B.D.

#### EXECUTIVE COMMITTEE

(1) *Ex officio Members*—The Chancellor, the Chairman, the Clerk, the Provost, The Dean of Residence, The Registrar, the Dean of the Faculty of Arts, the Dean of the Faculty of Divinity, and former Chairmen of Convocation—J. A. Worrell, M.A., K.C., D.C.L., D. T. Symonds, K.C., B.C.L., R. B. Beaumont, M.A., and D. J. Goggin, M.A., D.C.L.

#### (2) *Elected Members*

C. M. Baldwin, M.A.  
The Rev. Canon W. J. Brain, M.A.  
Miss M. Cartwright, B.A.  
The Rev. P. J. Dykes, B.A.  
Philip Dykes, Esq.  
G. C. Heward, M.A.

Sydney H. Jones, Esq.  
H. G. Keen, B.A.  
A. Angus Macdonald, M.A.  
J. W. S. Corley, K.C.  
The Rev. H. F. D. Woodcock, M.A.  
The Rev. W. H. White, M.A.

SCHOLARS AND PRIZEMEN

1923

ARTS

FOURTH YEAR—

His Excellency the Governor-General's Silver Medal for the Best Degree—J F Day

His Excellency the Governor-General's Bronze Medal for Headship of St Hilda's College—Miss M A Pickford

The Prize in Political Science—J F Day

The Prize in the Pass Course—Miss H J Hope

The John H Moss Memorial Supplemental Award—Miss M A Pickford

THIRD YEAR—

The Jubilee Scholarship—L A Spencer

SECOND YEAR—

The Hart Moorhouse Scholarship—A B Robertson

MATRICULATION SCHOLARSHIPS

1922

In 1922 there were no awards

DIVINITY CLASS PRIZE LIST

FOURTH YEAR—

*General Proficiency*—K W Hill, B A

*Dogmatic Theology*—K W Hill, B A

THIRD YEAR—

*General Proficiency*—G N Luxton

*Church History*—G N Luxton

BOTH YEARS—

*Greek Testament*—F H Mason, B A

*Hebrew*—No award

*Apologetics*—W A Brown, B A

*Old Testament*—G N Luxton

*New Testament*—K W Hill, B A

*Patristics*—F H Mason, B A

*Liturgics IV*—K W Hill, B A

*Liturgics III*—G N Luxton

*Sermon Prize*—F H Mason, B A

## MCDONALD PRIZES FOR BIBLE KNOWLEDGE—

- 1 J F Davidson, B A
- 2 W A Brown, B A
- 3 K W Hill, B A

## ESSAY PRIZE—

- J F Davidson, B A

## THE HAMILTON MEMORIAL PRIZE—

- K W Hill, B A

## READING PRIZES—

- College*—J F Davidson, B A  
*Doolittle* (for improvement)—F H Mason, B A  
*Osler*—1 J F Davidson, B A  
2 J F Bannell and K W Hill, B A, *æq*

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ST. MICHAEL'S COLLEGE

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## ST MICHAEL'S COLLEGE

St Michael's College was founded in 1852, at the request of the Rt Rev Dr de Charbonnel, then Bishop of Toronto. It was established for the purpose of combining religious instruction with a liberal education.

For a number of years it was granted state aid, in common with the other arts colleges of the Provinces. This came to an end when the Legislature of Ontario finally decided that no financial assistance should thereafter be given to denominational institutions.

In 1881, the College was affiliated with the University of Toronto, an arrangement having been entered into by which students proceeding to the degree of B.A. should attend lectures at University College in all subjects excepting Philosophy and History.

When in 1883-1884 a movement was on foot looking to the federation of every denominational college of the Province with the Provincial University, St Michael's was the first to accept the terms proposed, and in 1890, federated upon the proclamation of the University Federation Act.

From the commencement it was understood that such arrangements could not be other than experimental, and meanwhile it became more and more apparent that the experiment must end in failure. After a quarter of a century of affiliation and federation, during which time the University population had been multiplied by five or six, there was scarcely any increase in the number of Catholic students attending University College. During those same years, the Catholic Colleges of the Province had been constantly increasing in the number of their students. It was evident that the plan in operation was not of the kind to secure the confidence of the Catholic population. That population evidently would not favour a purely secular education.

In 1905, St Michael's found itself in a position to enter upon a scheme of providing instruction in all subjects known as "College Subjects", and made application to be admitted to federation on the same terms as Victoria and Trinity Colleges, claiming with them the privilege of free instruction for its students in University subjects. In response to this application, provision was made in the University Act of 1906 for the development of this scheme, upon the completion of which St Michael's succeeds to the rank and privileges of a "College of the University". This plan has been worked out with the most satisfactory results.

The Catholic Church does not understand education without religious instruction. In St Michael's, in every year of the student's course, a due proportion of time is reserved for this, and for the preservation of the religious spirit the greater number of the staff is chosen from the ranks of

the clergy It must be remembered, however, that St Michael's is purely an Arts College, and has no theological faculty as such

It is held as a fundamental principle, that the intimate association of students with one another, and with their teachers, contributes as much to true education as do the lecture room and library In accordance with this, the majority of the students live in residence The men students reside at St Michael's College, the women students reside at St Joseph's College, or Loretto Abbey College, and are subject from the point of view of discipline to the religious communities in charge of these institutions

#### ADMINISTRATIVE OFFICERS

REV H CARR, B A	<i>Superior.</i>
REV H S BELLISLE, M A	<i>Director of Studies</i>
REV J B WALSH, M A	<i>Bursar</i>
REV E J MCCORKELL, M A	<i>Registrar</i>

#### SCHOLARSHIPS AND PRIZES 1923

##### FOURTH YEAR—

The M J O'Brien Prize for the highest first class honours in Philosophy—No award

The Dockeray Prize to the student ranking highest in Pass English—  
Miss E Dawson

##### THIRD YEAR—

The Phelan Prize to the student ranking highest in Honour English—  
E C LeBel

The Kernahan Prize for highest first class honours in Philosophy—  
L Barnett

##### SECOND YEAR—

The Kernahan Prize for the highest first class honours in Philosophy—  
T Murtha

The English Prize to the student ranking highest in Pass English—  
T McLaughlin

##### FIRST YEAR—

The English Prize to the student ranking highest in Pass English—  
Miss M Phelan

Knights of Columbus Scholarships to the four students ranking highest in general proficiency—J P Kane, Miss N Storey, Miss M Phelan, B Harrigan

##### JUNIOR MATRICULATION—

The Silver Episcopal Jubilee Scholarship—Miss A Lee



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FACULTY OF MEDICINE

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## DEGREES AND DIPLOMAS IN MEDICINE

1 The thirty-eighth session since the re-establishment of the Faculty of Medicine of the University of Toronto will commence on Tuesday, September 30th, 1924

2 The Degrees in Medicine are Bachelor of Medicine—M B, Bachelor of Science—B Sc (Med), Doctor of Medicine—M D, and Master of Surgery—Ch M

The Diplomas in Medicine are —Diploma of Public Health—D P H, and Diploma in Radiology—D R

### DEGREE OF BACHELOR OF MEDICINE

3 Candidates for the degree of Bachelor of Medicine are required to matriculate and to attend during six sessions of at least eight months each the courses of instruction presented, and to pass examinations taken at the end of each session

### ENTRANCE REQUIREMENTS

4 Details in individual cases as to entrance requirements to the University, may be obtained on application to the Registrar of the University

5 A candidate for admission to the First Year in the Faculty of Medicine must produce satisfactory certificates of good character and of having completed the seventeenth year of his age on or before the first of October of the year in which he proposes to register, only under exceptional circumstances will a candidate of thirty years or more be admitted

He must also present certificates giving him *full* credit in the following subjects of Pass and Honour Matriculation

### PASS MATRICULATION

LATIN (Authors and Composition)

ENGLISH (Literature and Composition)

HISTORY (British and Ancient)

MATHEMATICS (Algebra and Geometry)

EXPERIMENTAL SCIENCE (Physics and Chemistry)

Any one of

GREEK (Authors and Composition)

FRENCH (Authors and Composition)

GERMAN (Authors and Composition)

SPANISH (Authors and Composition)

ITALIAN (Authors and Composition)

## HONOUR MATRICULATION

ENGLISH (Literature and Composition)

MATHEMATICS (Algebra, Geometry and Trigonometry)

One of

LATIN (Authors and Composition)

GREEK (Authors and Composition)

FRENCH (Authors and Composition)

GERMAN (Authors and Composition)

NOTE Physics or Chemistry or Biology of Honour Matriculation may be substituted for Trigonometry

6 A candidate possessing a degree in Arts from any recognized University may be considered as having fulfilled the entrance requirements

7 A candidate coming from a Province of Canada other than Ontario must present certificates of a standard equivalent to that required from students of the Province of Ontario

8 Students are required to complete above matriculation requirements before being admitted to the course in Medicine

9 A student who has fully completed the First Year in the Faculty of Arts of the University of Toronto, will be admitted to the First Year in the Faculty of Medicine, provided he has at least Pass Matriculation standing in Experimental Science. No fee will be charged for transferring from the Faculty of Arts to that of Medicine

## APPLICATION FOR EQUIVALENT STANDING

10 Any student of another University or College who desires to be admitted to the Faculty of Medicine of this University with equivalent standing is required first to communicate with the Registrar of the University, forwarding to him a full statement of preliminary education with certificates. After receiving notice from the Registrar that the entrance requirements have been met, the student should send an application to the Secretary of the Faculty of Medicine together with—

(a) A calendar of the University in which he has studied, giving a full statement of the courses of study

(b) A complete official statement of the course he has followed and the standing obtained in percentage

(c) A certificate of moral character and conduct

After submission of this application to the Faculty Council the candidate will be notified as to the decision reached

No student from a Medical Faculty of another University will be accepted unless his certificates show that he has completed the work and examinations in the subjects for which the certificates are presented

## REGISTRATION

11 Students desiring to enter the course in Medicine are required to submit their application form in duplicate along with the certificates on which they claim entrance standing, to the Registrar of the University, in Simcoe Hall, on or before September 1st. After this date each candidate will be notified as to whether his application has been accepted or not, a card of admission being enclosed to those applicants who are accepted.

12 On presentation of this card on or before the day of registration (September 30th) to the Secretary of the Faculty of Medicine, candidates will be officially registered by him as students in Medicine.

13. Students in the Second and higher years will receive by mail from the Secretary, an application form for registration in the succeeding year. This form must be filled in and forwarded to the office of the Secretary of the Faculty of Medicine on or before September 1st.

14 On September 30th a student must present himself in person for his registration card which gives his number, section and class. No student shall be allowed to register in the Faculty of Medicine after the first day of term. No student shall be admitted to any laboratory or clinical class after its first meeting except at the discretion of the instructor concerned.

15 No student will be permitted to register in the second or any succeeding year until he has completed all the examinations of the preceding year.

16 Only under exceptional circumstances will a student be permitted to repeat his year more than once.

17 Subdivision into sections and clinical classes will be made by the Secretary. Students wishing to be placed in the same section or clinical class must file personally signed applications conjointly with the Secretary on or before June 1st.

## ATTENDANCE

18 Students are required to attend lectures and receive practical instruction during each of the six years at this University.

19 A student who fails to do satisfactory term work in any subject is not permitted to present himself for examination.

20 In cases of students applying for temporary positions in hospitals, laboratories or for *locum tenens* to physicians, the permission of the Faculty Council must be obtained before they will be allowed to absent themselves from the lectures and laboratory work of the University.

21 Students who have completed the work of the Fifth Year are required, before commencing the course of studies of the Sixth Year, to undertake field work of one month's duration in Public Health and Pre-

ventive Medicine This course may be taken either in June or September The work will be carried on in any Department of Public Health in Ontario, recognized by the University as having adequate facilities for this instruction

Assignment of students to Health Departments, arrangement of time when the course is to be taken and the syllabus of work will be arranged for by the Department of Hygiene and Preventive Medicine before the close of the work of the Easter Term in the Fifth Year

*22 No applications or petitions for exemptions from classes, laboratory work or examinations will be received or considered unless filed at the Secretary's office on or before October 15th of any year*

# FEES

## REGULAR STUDENTS IN MEDICINE

21 All University fees are payable at the Bursar's office in the Main University Building, between the hours of ten and one o'clock, except on Saturday

24 REGULAR STUDENTS First, Second, Third, Fourth, Fifth and Sixth Years--Annual Fee, including tuition, library, laboratory supply, hospital\* and one annual examination--

If paid in full on or before November 10th . \$150 00

By instalments--

First instalment, if paid on or before November 10th 75 00

Second instalment, if paid on or before February 10th 78 00

Hall House and Students Administrative Council fee, to be paid by all men students proceeding to the degree 11 00

Women Students Administrative Council Fee, to be paid by all women students proceeding to the degree 3 00

25 STUDENTS IN COMBINED COURSE IN ARTS AND MEDICINE

Annual Fee, including college registration, library, laboratory supply, and one annual examination

	Arts Fees	Medical Fees	Total
First Year Arts	\$57 00		\$57 00
Second Year Arts	58 00		58 00
Third Year Arts and Second Year Medicine	57 00	\$85 00	142 00
Fourth Year Arts and Third Year Medicine	62 00	85 00	147 00

The fees for the Fourth, Fifth and Sixth Years in the Faculty of Medicine are as for regular students

\*The composite fee of \$150 00 includes one session's clinical facilities at the Toronto General Hospital, St Michael's Hospital, or Toronto Western Hospital, and the Hospital for Sick Children, but does not cover the midwifery ticket for the Burnside Lying-in Hospital, which must be obtained there



## Payment of the Medical portion of the fees—

If paid on or before November 10th	\$85 00
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## By instalments—

First instalment, if paid on or before November 10th	43 00
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Second instalment, if paid on or before February 10th	44 00
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## 26 GRADUATE AND SPECIAL COURSES

(1) Graduates attending undergraduate courses per month	\$10 00
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(2) B Sc (Med) Course	100 00
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(3) D P H Course	150 00
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## By instalments

1st instalment at the beginning of the Fall Session	75 00
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2nd instalment at the beginning of the Winter Session	75 00
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Fee for the Diploma	20 00
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(4) Short Course in Radiology	100 00
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(5) Diploma in Radiology	400 00
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27 All of the above fees are payable in advance. After November 10th, a penalty of \$1 00 per month will be imposed until the whole amount is paid. In the case of payment by instalments the same rule as to penalty will apply. Students must have paid fees due in first term before proceeding to the work of the second term. A student will not be admitted to any of the University lectures or laboratories who is in arrears for his fees.

## 28 GENERAL FEES

Matriculation, or registration of Matriculation	\$5 00
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Supplemental examinations	10 00
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Admission <i>ad eundem statum</i>	10 00
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Degree of M B	20 00
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Degree of B Sc (Med)	10 00
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Admission <i>ad eundem gradum</i>	20 00
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In the case of candidates for the Final Examinations, the fee for the degree must be paid to the Bursar not later than the 20th of March.

## HART HOUSE FEE

29 The annual fee	\$8 00
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Every male student in attendance, proceeding to a Bachelor's degree in the Faculty of Medicine is required to pay to the Bursar before December 1st the annual fee of eight dollars for the maintenance of Hart House. If this fee is not paid by the above date a penalty of two dollars will be imposed, making the total fee ten dollars.

## STUDENTS' ADMINISTRATIVE COUNCIL FEE

30 The annual fee	\$3 00
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Every male student in attendance proceeding to a Bachelor's degree in the Faculty of Medicine is required to pay to the Bursar at the time of the entry of his name with the Registrar the annual fee of three dollars for the maintenance of the Students' Administrative Council.

WOMEN STUDENTS ADMINISTRATIVE COUNCIL FEE

- 31 The Annual Fee \$3 00

Every woman student in attendance, proceeding to a Bachelors degree in the Faculty of Medicine, is required to pay to the Bursar at the time of the entry of her name with the Secretary, the annual fee of three dollars for the maintenance of the Women Students Administrative Council

MEN'S PHYSICAL TRAINING FEE

- 32 The annual fee \$5 00

Every male student in attendance proceeding to a Bachelor's Degree in the Faculty of Medicine is required to pay to the Bursar the annual Physical Training fee of \$5 00 at the opening of each session in which Physical Training is compulsory for that Student

WOMEN'S PHYSICAL TRAINING FEE

- 33 The annual fee \$4 00

Every woman student in attendance proceeding to a Bachelor's Degree in the Faculty of Medicine is required to pay to the Bursar the Physical Training Fee of \$4 00 at the opening of each session in which Physical Training is compulsory for such student

SUPPLEMENTARY PHYSICAL TRAINING FEE

- 34 Supplemental fee \$10 00

Every student who has neglected to complete satisfactorily the course in Physical Training of the First or Second Year and who must take this work during the Second or Third Year respectively of his or her course, will be required to pay to the Bursar at the opening of the session a Supplemental fee of \$10 00, in addition to the prescribed Physical Training Fee

MEDICAL SOCIETY FEE

- 35 The annual fee \$2 00

Every student in attendance proceeding to a Bachelor's Degree in the Faculty of Medicine is required to pay to the Bursar at the opening of the Session, an annual fee of \$2 00 for the maintenance of the Medical Society

MICROSCOPES

36 Every student entering the Faculty of Medicine in the Session 1924-1925 will be required to provide himself at the commencement of the third year of his studies, with a microscope of approved design. The microscope must be of substantial construction, and be provided as a minimum, with the following accessories—Objectives—16 mm, 4 mm and 1 8 mm oil immersion, oculars  $\times 5 \times 10$ , triple nose piece, and a substage condenser with an iris diaphragm. Such an instrument is an essential part of the equipment of a practitioner in medicine

Arrangements may be made for the purchase of such an instrument on a deferred payment plan through the Faculty of Medicine

## INSTRUCTION

37 The course of instruction given by the Faculty of Medicine in preparing students for the degree of M B consists of six sessions of eight months each

The course is so framed that the requirements of the various Provincial Licensing bodies are fulfilled and it aims at giving the student such a training in the sciences as is now exacted of all those who desire to obtain any British Medical qualification in addition to a Canadian one

## OPTIONS OF PRIMARY YEARS

38 The student of Medicine is reminded that during his years of study he is preparing himself to enter a profession which presents manifold and diverse aspects No prescribed course of study of practicable length can by any possibility fit the student for all of the special careers which the profession of medicine offers The curriculum provided by the Faculty of Medicine is designed to furnish a framework of knowledge and technical skill which will adequately equip all students for the general practice of medicine and its branches, the time allotted for this purpose, in every subject of the course, being well in excess of that required as the minimum by examining boards and Universities in this and other countries The six years' curriculum, however, also provides for the student filling in and amplifying his regular work with special studies that are designed either to broaden his general education, and therefore, make him better fitted for the practice of medicine, or to enable him to undergo, in certain of the subjects of the curriculum, a somewhat more intensive training than is essential for all students, so as to prepare him for some particular type of medical career To enable the student to accomplish these purposes a number of hours of optional study are prescribed, the precise subjects of study being largely left to the student's choice It is, however, expected that this choice will not be aimless, but made of set purpose and designed to some particular end

Final selection of options should be made in consultation with the Class Adviser (see Par 40)

The optional courses available in the six year curriculum are of two types, entitled for convenience, Cultural Options and Scientific Options During the First Year no Scientific Options are available, but each student must take one Cultural Option, during the Second and Third Years he must take one Cultural Option and one Scientific Option

The following subjects are available for options

*First Year—Cultural Options*

English  
Mathematics

Scientific French  
Scientific German

*Second Year—Cultural Options*

English  
Mathematics  
Scientific French  
Scientific German  
History  
Psychology  
Economics  
Philosophy

*Scientific Options*

Chemistry (Volumetric Analysis)  
Physics  
Biology (Heredity and Eugenics)

*Third Year—Cultural Options*

English  
Mathematics  
Scientific French  
Scientific German  
History  
Psychology  
Economics  
Philosophy  
History of Physiology

*Scientific Options*

Physica  
Problems of Biology  
Anatomy  
Embryology  
Parasitology  
Cytology

The so-called "Cultural Options" are provided in order that the student may be afforded, through them, an opportunity of acquiring a somewhat broader field of interest than that provided by a curriculum confined strictly to Medical subjects. A student who has attained some insight into such subjects as History, Economics, English, Philosophy, etc., and who has learned to speak and write in a clear, simple and convincing manner, is necessarily better prepared to uphold the traditions of his profession by entering with intelligence into the life and interest of the community, than one whose outlook is restricted to the field of Medical Science.

The Scientific Options are provided in order to enable a student to perform more advanced work in the departments of Medical science in which he is especially interested. They also supply facilities for those students who wish to enter certain special fields after graduation, such as Psychiatry, Public Health or Laboratory Investigation. For example, the student who intends to devote himself to the study of Psychiatry is recommended to take the options in Psychology and Biology in his second year and Psychology in his third year. The student desiring to work in the field of Public Health is advised to take the course in Economics in order that he may comprehend the social and statistical aspects of such work, the course in Parasitology which will acquaint him with the structure, habits and control of disease-bearing insects, and that in Mathematics which provides the necessary familiarity with Statistical methods. The student interested in a career of laboratory investigation, should select that subject which best leads to his chosen field. He is reminded, however, that in all fields of Laboratory Research, Mathematics is of increasing

importance and he is therefore strongly urged to acquire a knowledge of elementary Calculus and of Statistical Methods by taking the Mathematics option in each of the first three years

### OPTIONS OF FINAL YEARS

39 Students who have attained a certain standing in the courses of the first three years will be permitted to continue taking options during the 4th, 5th and 6th years. The time assigned for option courses during the 4th, 5th and 6th years will be seen to be sufficient for one option (64 hours). The subjects from which the options may be chosen during each of the years are given in the attached table

An option in any one of the following Departments may be taken in the Fourth Year

- |                |                |
|----------------|----------------|
| 1 Physiology   | 4 Physics      |
| 2 Biochemistry | 5 Psychiatry   |
| 3 Anatomy      | 6 Bacteriology |

Options in any one of the following Departments may be taken during the Fifth Year, as follows

- |                |                             |
|----------------|-----------------------------|
| 1 Physiology   | 7 Pathological Chemistry    |
| 2 Biochemistry | 8 Bacteriology and Serology |
| 3 Anatomy      | 9 Hygiene                   |
| 4 Physics      | 10 Pathology                |
| 5 Psychiatry   | 11 Military Studies         |
| 6 Pharmacology |                             |

Options in any one of the following Departments may be taken in the Sixth Year as follows

- |                             |                               |
|-----------------------------|-------------------------------|
| 1 Physiology                | 9 Hygiene                     |
| 2 Biochemistry              | 10 Pathology                  |
| 3 Anatomy                   | 11 Medicine                   |
| 4 Physics                   | 12 Surgery                    |
| 5 Psychiatry                | 13 Obstetrics and Gynaecology |
| 6 Pharmacology              | 14 Therapeutics               |
| 7 Pathological Chemistry.   | 15 Other clinical subjects    |
| 8 Bacteriology and Serology | 16 Military Studies           |

Emphasis should be placed on the principle that no attempt is made in the optional classes of the later years, to train students as specialists. There are, for example, no options in subjects like laryngology, ophthalmology, radiology, etc., since it is believed unsound to train men to be specialists in these fields until they have thoroughly rounded out their medical or surgical education and have served a year as an interne in the hospital. On the other hand students who have definitely decided that their future career lies in one or other of the specialties will be privileged, during their option time, to take courses in the pre-medical or fundamental

sciences upon which these specialties depend. For example courses in Physics and Physiology dealing with the question of optics, acoustics, radiology, etc., are given.

#### STUDENT ADVISER

40 In order to assist the student in making a correct choice of optional subjects, a student-adviser has been appointed for each year. Every student is required to submit to the adviser a list of his proposed studies and his time table, and the written approval of the adviser and the consent of the Faculty Council will be required before the student's registration will be considered to have been completed. It is understood that any coherent plan of study designed by the student for a particular and intelligible purpose will be approved, but courses of study which appear to be manifestly unsuitable, and for his choice of which the student can furnish no adequate explanation or excuse, will not be approved by the adviser.

Student Adviser for Class of 1925  
Student Adviser for Class of 1926  
Student Adviser for Class of 1927  
Student Adviser for Class of 1928  
Student Adviser for Class of 1929  
Student Adviser for Class of 1930

PROF DUNCAN GRAHAM  
DR E S RYERSON  
PROF C L STARR  
PROF H WASTENEYS  
PROF A HUNTER  
PROF J J R MACLEOD

## 41 SUBJECTS OF INSTRUCTION

NUMBER OF HOURS SPENT IN DIDACTIC, LABORATORY  
AND CLINICAL WORK*First Year*

Subject	Didactic	Laboratory	Total
Biology	60	210	270
Chemistry	60	180	240
Physics	90	180	270
Science and Civilization	60		60
English Expression	30		30
Option	60		60
Physical Training			60
	360	570	990

*Second Year*

Subject	Didactic	Laboratory	Total
Anatomy	30	450	480
Histology and Embryology	75	165	240
Chemistry	60	45	105
Option one	60		60
Option two		90	90
Physical Training			60
	225	750	1,035

*Third Year*

Subject	Didactic	Laboratory	Total
Physiology (including Psychology)	120	180	300
Biochemistry	90	135	225
Bacteriology		165	165
Anatomy	80	30	90
Option one	60		60
Option two		60	60
	330	570	900

*Fourth Year*

Subject	Didactic	Laboratory	Clinical	Total
Medicine	90		180	270
Surgery	60		120	180
Pathology	90	120		210
Pathological Chemistry		60		60
Psychiatry	15			15
Pharmacology	30	90		120
Applied Anatomy	30			30
Option		60		60
	315	330	300	945

*Fifth Year*

Subject	Didactic	Laboratory	Clinical	Total
Medicine (including Paediatrics)	45		300	345
Surgery	30		120	150
Obstetrics and Gynaecology	75		20	95
Pathology	30	120		150
Pathological Chemistry	30	30		60
Ophthalmology			15	15
Oto-Laryngology			15	15
Hygiene and Preventive Medicine	45			45
Med Juris and Toxicology	30			30
Psychiatry	15			15
Therapeutics	30		10	40
Radiology	15			15
Applied Anatomy	30			30
Option		60		60
	375	210	480	1,065



*Sixth Year*

Subject	Didactic	Laboratory	Clinical	Total
Medicine (including Paediatrics)	60		350	410
Surgery	30		190	220
Obstetrics and Gynaecology	30		140	170
Pathology	30	40		70
Ophthalmology	10		10	20
Oto-Laryngology	10		10	20
Hygiene and Preventive Medicine				112*
Psychiatry			10	10
Therapeutics	5		25	30
Radiology		40		40
Dentistry	5			5
History of Medicine	10			10
Medical Ethics	3			3
Life Insurance	2			2
	200	80	735	1,010

\*The student is required to spend one month in field work in Hygiene and Preventive Medicine between the Fifth and Sixth Years

## COMBINED COURSE IN ARTS AND MEDICINE

42 It is possible for a student who takes this Biological and Medical Sciences Course, followed by the final years of the Medical Course, to obtain the degree of Bachelor of Arts at the end of four years and of Bachelor of Medicine after seven years study at the University. When entering the third year of the Arts course, these students register in the second year of Medicine and on entering their fourth year Arts, they register in the third year Medicine.

43 In the curricula of this Arts Course the Science subjects are treated more extensively than they are in the Medical curriculum.

44 The Biological and Medical Sciences Course completes the requirements of the first three years in Medicine with the exception of Bacteriology of the Second Year. First and Second Years in the Biological and Medical Sciences Course are equivalent to the First Year in Medicine. The first two years work is the same as that for the course in Physiology and Biochemistry. The students who proceed during the third and fourth years of the latter course take up the subjects of Physiology and Biochemistry *without reference to Medicine*.

45 These courses not only afford opportunities for a broader training and greater scientific attainment than is possible in the six years' course in Medicine, but they fit the student for a much wider field of usefulness after graduation. The graduate who has taken one of the Science Courses in Arts and subsequently the Course in Medicine is qualified to devote his life to one of the purely scientific lines of Medicine if he should so elect, after leaving the University, and, moreover, he is, undoubtedly, better fitted to practise his profession should he desire to prepare himself for that alone.

46 Students who proceed to the Arts degree through other Science Courses may, on entering the Faculty of Medicine, be allowed exemption from such subjects in Medicine as they have taken in the curricula of the Faculty of Arts.

## B Sc (MED) COURSE

47 The degree of B Sc (Med) has been added to the curriculum in Medicine so as to encourage scholarship and give official recognition to students who have done exceptionally well in the introductory medical sciences.

1 Medical students of the Six Years' Course who have reached the end of the third year or subsequent years of their course, and who have maintained a standard to be subsequently determined in all of their classes, may become candidates for the degree provided (a) They spend one year longer (a fourth year) in the medical sciences other than clinical in groups of courses which will be mapped out on the general basis that the

greater proportion of time is spent in one of the non-clinical laboratory departments, and the lesser proportion in cognate departments, any of the following sciences may be taken Anatomy, Biochemistry, Bacteriology, Physiology, Pathology, Pathological Chemistry, Pharmacology, Embryology, if the student has completed the required work therein At the time of proceeding to the degree the student shall be required to show facility in reading one modern language other than English Students intending to take this course are advised to prepare themselves by taking either the mathematical or biological option for two years

2 Graduates in Medicine irrespective of the standard of their entrance requirements, who have maintained a satisfactory standard throughout their entire medical course, may become candidates for the degree provided (a) They spend one additional year in work in some laboratory department of this University (including those of the clinical years) and carry out a piece of research to the satisfaction of the head of the department (b) They acquire facility in reading one modern language besides English Medical graduates who return to laboratory departments as fellows or demonstrators will be eligible for the B Sc (Med ) degree, but the successful prosecution of a piece of research is essential

3 The Council of the Faculty will not recommend the conferring of this degree because of the completion of a certain programme of studies Evidence must be exhibited of special aptitude and of high attainment in the field chosen by the candidate

4 An oral examination will be conducted by the staff of the department in the major and in the minor subjects before the candidate is reported to the Faculty for the degree

## ADMISSION TO EXAMINATIONS

48 Every student who proposes to present himself at the Annual or Supplemental Examinations must see that the Secretary has in his possession the following —

1 *An Application for Examination* The form supplied must be filled in, signed, and left in the Secretary's Office on or before March 16th Students presenting applications after this date must pay an additional fee of One Dollar

2 *A Certificate of Attendance* indicating that he has complied with the regulations respecting attendance upon didactic, laboratory and clinical work in each of the subjects of instruction for the year in which he seeks examination This Certificate is issued by the University and must be signed by the Head of each Department after completion of the course of instruction

49 *Candidates for the Degree of Bachelor of Medicine* are required to have on their Certificates of Attendance the following additional particulars —

(a) A certificate of having conducted at least twenty labours under the supervision of the Head of the Department of Obstetrics and Gynaecology

(b) A certificate of proficiency in vaccination, from the Head of the Department of Hygiene.

(c) A certificate of having attended fifteen autopsies under the supervision of the Head of the Department of Pathology

(d) A certificate of having administered anaesthetic on six occasions, under the supervision of the Head of the Department of Therapeutics

50 No candidate will be admitted to the Annual or Supplemental Examinations unless he has paid all the fees due from him

51 No candidate in a course involving practical work in a laboratory or clinic will be admitted to the Annual or Supplemental Examinations if the Professor under whom his work is carried on reports in writing to the Secretary that he has not done satisfactory laboratory or clinical work, or has signally failed in the practical examinations

52 Undergraduates who have been prevented from attending the Annual Examinations by sickness, domestic affliction, or other causes beyond their control, may make application for permission to present themselves for examination at the Supplemental Examinations in September, and must give satisfactory evidence of the cause of absence

## EXAMINATIONS

53 The Annual Examinations are held in May at the end of the First, Second, Third, Fourth, Fifth and Sixth academic years, and the Supplemental Examinations in September

54 The minimum pass standard in each subject of examination is 50%.

## SUBJECTS OF THE ANNUAL EXAMINATIONS

### 55 FIRST EXAMINATION

- 1 Biology
- 2 Chemistry
- 3 Physics
- 4 Science and Civilization and English Expression
- 5 Option

Candidates who fail in any subject or subjects at the Annual Examinations may present themselves at the Supplemental Examinations next ensuing.

Candidates who fail in any subject or subjects at the Supplemental Examinations will only be permitted to register again to repeat the First Year of the course under very exceptional circumstances and must obtain the permission of the Faculty before being allowed to register

(The students' attention is particularly drawn to paragraph 15 page 13)

#### 56 SECOND EXAMINATION

- 1 Anatomy
- 2 Histology, Embryology
- 3 Organic and Physical Chemistry
- 4 Option one
- 5 Option two

#### 57 THIRD EXAMINATION

1. Physiology
- 2 Biochemistry
- 3 Anatomy
- 4 Bacteriology
- 5 Option one
- 6 Option two

#### 58 FOURTH EXAMINATION

- 1 Medicine
- 2 Surgery
- 3 Pathology
- 4 Pharmacology

#### 59 FIFTH EXAMINATION

- 1 Medicine (including Paediatrics)
- 2 Surgery
- 3 Obstetrics and Gynaecology
- 4 Pathology
- 5 Pathological Chemistry
- 6 Hygiene and Preventive Medicine
- 7 Medical Jurisprudence and Toxicology
- 8 Therapeutics

#### 60 SIXTH EXAMINATION

- 1 Medicine
- 2 Surgery
- 3 Obstetrics and Gynaecology
- 4 Paediatrics
- 5 Clinical Ophthalmology
- 6 Clinical Otolaryngology
- 7 Clinical Therapeutics

NOTE—Questions in Pathology may be asked on the papers in Medicine, Surgery or Obstetrics and Gynaecology

Questions on Applied Anatomy may be asked on the papers in Medicine and Surgery in the Fourth, Fifth and Sixth Examinations

61 Candidates at the Second, Third, Fourth, Fifth and Sixth Examinations who have passed in all but two subjects may present themselves at the Supplemental Examinations next ensuing

Candidates at the Second, Third, Fourth, Fifth and Sixth Examinations failing in three or more subjects must repeat the entire work of the year, including the examinations in every subject of the year

62 Candidates at the Supplemental Examinations who succeed in passing in the one or the two subjects in which they were conditioned at the Annual Examinations shall be allowed their year

63 Candidates at the Supplemental Examinations who fail in any subject in which they were conditioned, will be required to repeat the entire work of the year, including the examinations thereof in every subject

64 Candidates of the First, Second or Third Years who at the Supplemental Examinations fail to pass in one optional subject in which they were conditioned will be permitted to register in the next succeeding year, but will be required to pass the examination in this option at the end of the year, before they will be allowed to proceed with their course

65 Candidates in the Fourth, Fifth and Sixth Years taking Options must satisfy the Head of the Department concerned that they have done satisfactory work. Reports on the character of their work are to be sent to the Secretary of the Faculty by the Head of the Department

66 It has been the regulation for some years that students be not informed of the marks they have obtained at the Annual or Supplemental Examinations. In future a statement will be sent to all students who have not completely passed in all examinations and to any other students who request the same *in writing*, from the Secretary indicating their approximate standing as follows—

- A—70% to 100%
- B—50% to 69%
- C—40% to 49%
- D—below 40%

In awarding prizes and fellowships the marks for optional subjects or courses will not be included

## 67 REGULATIONS FOR LICENCE TO PRACTISE

The right to practise Medicine in Canada or its provinces is not conferred when a student receives his degree from the University. There is a licensing body for the Dominion and one for each of the provinces, each of which has formulated certain medical laws and a standard of general education with which the student must comply before he is entitled to practise. One of these requirements is that it is necessary to be registered in the province in which the student intends to practise, five years before he can obtain a license. Students are therefore advised to complete their registration for license to practise in the First or Second Year.

For official information of all matters relative to the regulations for licence to practise in the various Provinces in the Dominion, students should communicate with the Registrar. The following is a list of the names and addresses of the Registrars of the Medical Councils.

For official information regarding the Medical Council of Canada address Dr R W Powell, 180 Cooper Street, Ottawa, Canada.

Ontario—Dr H W Atkins, 170 University Ave., Toronto

Quebec—Dr J Gauvieux, Dandurand Bldg, St Catherine St E,  
Montreal

New Brunswick—Dr John S Bentley, 138 Charlotte St., St John

Nova Scotia—Dr W H Hattie, Halifax

Prince Edward Island—Dr James Warburton, Kent St., Charlottetown.

Newfoundland—Dr T Mitchell, St John's

Manitoba—Dr J E Coulter, 604 Boyd Bldg., Winnipeg

Alberta—Dr G R Johnson, Calgary

Saskatchewan—Dr J McGregor Young, Regina

British Columbia—Dr A P Proctor, Vancouver

68 REGULATIONS FOR THE DEGREE OF DOCTOR OF  
MEDICINE AND MASTER OF SURGERY

The Degrees which the Faculty of Medicine, University of Toronto, offer to Graduate students are those of Doctor of Medicine (M D) and Master of Surgery (Ch M).

Before a candidate will be eligible to register for these degrees he must have fulfilled the following entrance requirements:

(1) Graduated in Medicine from a recognized University

(2) Spent one year in a Hospital as an Interne on a rotating service or its equivalent. (Two years general practice may be accepted as the equivalent of this)

*Length of Course*

The course will be normally of three years duration of twelve months each.

to the first of the clinical years of the course. One full year's special work in one of the required laboratory subjects of the course may be accepted as equivalent to the laboratory year of the course. A graduate having the B Sc (Med) will be considered as having fulfilled this requirement. In very exceptional cases, both of the above alternatives may be allowed.

*The Course will consist of*

*First Year (Clinical)*

One year's instruction in Medicine or Surgery

This may be taken while the student is acting as a Hospital Interne in the selected clinical subject. (This is in addition to the internship on a rotating service.)

At the end of the first year the candidate must present a certificate to the School of Graduate Studies from the Physician or Surgeon in charge of the service in which the candidate has worked, stating the nature and details of the work done, and the degree of efficiency with which it has been carried on.

*Second Year (Laboratory)*

One year's instruction in a laboratory subject

The student will devote the major part of his time for this year to work in one of the following laboratory departments and the minor part to work in any other two of these departments.

- (a) Anatomy
- (b) Physiology
- (c) Biochemistry
- (d) Pathological Chemistry
- (e) Pathology
- (f) Bacteriology and Immunology
- (g) Pharmacology
- (h) Physics

At the end of the second year proceeding to the Degree of M D the candidate must pass a written and oral examination in the major and two minor subjects he has elected to take.

At the end of the second year proceeding to the Degree of Ch M, the candidate must pass a written and oral examination in the following subjects.

- (a) Pathology, including Bacteriology
- (b) Anatomy
- (c) Principles of Physiology



A candidate failing in either the written or oral examination in his major subject must repeat the year before being considered eligible for re-examination. A candidate failing in not more than one of his minor subjects may apply for a Supplemental examination in that subject in which he has failed.

#### *Third Year (Clinical)*

One year's instruction in Medicine or Surgery

One of the clinical years in the course for the Surgical Degree may be spent in the Department of Obstetrics and Gynaecology.

This clinical year may be taken while holding a hospital appointment in the selected clinical department.

At the end of the third year proceeding to the Degree of M.D. or Ch.M. the candidate must present a certificate to the School of Graduate Studies from the Physician or Surgeon in charge of the service on which he has worked, stating the nature and details of the work done and the degree of efficiency with which it has been carried out.

The third year of the course must be taken in the University of Toronto in all cases.

Candidates in Medicine or Surgery, besides being familiar with the general field of the subject, must be able to make

- (a) A satisfactory examination of the Eye, Ear, Nose and Throat
- (b) A satisfactory pelvic examination
- (c) A satisfactory routine laboratory examination

Candidates must present a satisfactory thesis and pass an examination in the subjects of instruction at the end of the course. Candidates proceeding to the Ch.M. must pass an examination in General Surgery.

### ADMISSION AD EUNDEM GRADUM

69 A graduate of any of the universities in Great Britain or Ireland, if his degree be not an honorary one, may be admitted to the like degree in the University of Toronto. He must send in his certificate to the Registrar at least two weeks before the first meeting of the session of the Senate at which his application is to be brought forward.

### SCHOLARSHIPS, MEDALS, PRIZES AND FELLOWSHIPS

#### THE GEORGE BROWN MEMORIAL SCHOLARSHIP IN MEDICAL SCIENCE

70 Dr. A. H. F. Barbour, of Edinburgh, having placed one thousand pounds sterling at the disposal of the University of Toronto, for the purpose of founding a Scholarship in Medical Science in memory of the late Hon. George Brown, the following regulations have been adopted with regard thereto—

This scholarship shall be called the George Brown Memorial Scholarship in Medical Science and shall be awarded annually at the Convocation for conferring degrees in Medicine to the Bachelor of Medicine who shall have distinguished himself most in the subjects of Anatomy, Biology, Physiology, Biochemistry, Pharmacology, Pathology and Pathological Chemistry

The award shall be made by a committee composed of the Professors in these subjects who shall report as to the successful candidates, after having given due attention to the results of the annual examinations, and to the character of the work done by the candidates in the University laboratories

The holder of the scholarship during the year of tenure is required to engage in original research in any one of the laboratories of the University on some subject bearing on the advancement of medical science—the laboratory providing the material for the investigation

The scholarship is to be paid in two portions, two-thirds at the time of award and one-third six months later, on the holder giving satisfactory report (to whomsoever the University may appoint) of the work he has already done

A report of the research, when completed, is to be given to the University

The value of the scholarship is three hundred dollars (\$300 00)

#### THE STARR MEDALS

71 The late Richard Noble Starr, M D, devised certain property for the encouragement of post-graduate study in Anatomy, Physiology and Pathology, and in fulfilment of this object one gold and two silver medals called the "Starr Medals", are awarded annually to three candidates for the degree of M D, who have shown by the theses which they have presented for that degree, that they have successfully pursued such study in any one of these subjects. The theses for which these medals are given must attain a standard approved of by the Board of Examiners, and the relative value of the theses will determine the rank of the candidates for the medals

#### GEORGE ARMSTRONG PETERS SCHOLARSHIP

72 The Scholarship will be awarded biennially to a graduate student of the University of Toronto on the recommendation of the Department of Surgery

The first award was made in 1912. The holder of the Scholarship will be required to undertake work in one of the Departments of the University which will have some special bearing on Surgery

This Scholarship will be available for any graduate who wishes to do special research work in connection with the Department of Surgery or in correlated subjects

A graduate wishing to obtain the Scholarship must apply to the Department of Surgery and present his credentials, and the award will be made on the recommendation of the Department

The value of the Scholarship is two hundred dollars (\$200 00)

#### THE REEVE PRIZE

73 A portion of the Reeve Post-Graduate Fund will be devoted to establishing a prize of \$50 00, to be awarded annually for the best published report of work done in the laboratories by a research Fellow or junior member of the staff in any department in Medicine

The award shall be made in September by a Committee composed of the Professors of Anatomy, Physiology, Biochemistry, Pharmacology Pathology and Pathological Chemistry

#### THE CHAPPELL PRIZE

74 The late Dr Walter F Chappell, of New York, a graduate in the Faculty of Medicine of the University of Toronto, established a prize of Fifty Dollars (\$50 00) per annum to be awarded in alternate years to the best student of the final year in Clinical Medicine or Clinical Surgery In June, 1924, the prize will be awarded in Clinical Medicine This prize is awarded on the recommendation of the Head of the Department

#### THE JAMES H RICHARDSON RESEARCH FELLOWSHIP IN ANATOMY

75 This Fellowship of the annual value of Five hundred dollars (\$500 00) has been established in memory of the late Dr James H Richardson, for many years Professor of Anatomy in the University of Toronto It is open to graduates in Medicine of the University of Toronto and of such other Universities and Medical Schools as may be approved by the Nominating Committee and to students in the University of Toronto who shall have completed the third year of the course in Medicine

The fellowship is awarded on the nomination of a Committee consisting of the Professor of Anatomy, the Professor of Biology and the Professor of Surgery in the University of Toronto, and the holder of it is obliged during its tenure, to devote his entire time to investigation in Anatomy under the direction of the Professor of Anatomy in the University of Toronto The fellowship is tenable for one year, but the holder of it is eligible for re-appointment for not more than two additional years, at the discretion of the University Senate upon the recommendation of the Nominating Committee

Applications for nomination to the Fellowship should be handed to the Professor of Anatomy not later than the first day of May of each year

## ELLEN MICKLE FELLOWSHIP

76 A Fellowship, being the annual income from an endowment of Twenty Five Thousand Dollars (\$25,000) has been established by the late Dr W J Mickle, known as "The Ellen Mickle Fellowship", to be given to the student (or students) who in the examinations at the end of the fifth year of the Six Years' Course in Medicine, shall have taken honours of the first class in at least three fourths of the subjects of that year, and shall have obtained the highest marks in the examinations. The award will be made to the above referred to student (or students) provided he proceed to the degree of Bachelor of Medicine in this University and spend one year in post graduate study approved by the Council of the Faculty of Medicine.

Those students who obtain an average of 70% in all subjects of the year, and not less than 60% in any subject, shall be considered as having obtained Honour Standing.

## CHARLES MICKLE FELLOWSHIP

77 This Fellowship, bequeathed by the late Dr W J Mickle, being the annual income from an endowment of Twenty Five Thousand Dollars (\$25,000) will be awarded annually to that member of the medical profession who is considered by the Council of the Faculty of Medicine of the University of Toronto to have done most during the preceding ten years to advance sound knowledge of a practical kind in medical art or science.

## THE J J MACKENZIE PRIZE IN PATHOLOGY AND BACTERIOLOGY

78 This prize, consisting of the income from \$5,000, is the generous donation of Graham Campbell, B A, M B, C M, in the memory of the late J J Mackenzie, for many years Professor of Pathology and Bacteriology in the University of Toronto. It will be awarded annually to the student, who, at the end of the final year is considered to have done the best work in these subjects during his undergraduate course.

## THE UBUKATA FUND

79 The S Ubukata Fund of \$10,000, the gift of Mr S Ubukata, provides for the establishment of prizes, medals, scholarships and loans for which Japanese students of all faculties and colleges may be eligible. Information regarding the conditions of award may be obtained from the Registrar of the University.

## THE ROBERT BRUCE SCHOLARSHIP

80 The Robert Bruce Scholarship, founded from the Estate of the late Robert Bruce of Quebec, of the value of \$100, is open to undergraduates who have completed the First Year in the Faculty of Medicine, subject to the following conditions.

1 This Scholarship is open only to students (a) who are of Scottish extraction, (b) who have complete Matriculation in this University as at the date of entrance, (c) who without some assistance would be hampered in entering upon a course of study in the University

2 A student who already holds a Scholarship of the value of at least \$100, exclusive of free tuition, cannot qualify for the above Scholarship

3 Applications for this Scholarship should be made to the Registrar of the University

### COURSES FOR GRADUATES IN MEDICINE

81 The Faculty of Medicine of the University of Toronto recognizes that the practitioners of the Province are anxious to keep closely in touch with the advances in Medicine, and that they have a claim on the Provincial University to aid them in doing so. The Faculty considers this entails on it a duty second only to the instruction of the undergraduate

At the present time the large amount of undergraduate teaching makes it impossible to offer during the academic session set courses of sufficient variety to meet all the needs of those who seek further study

Those who have studied abroad know that the routine method is for the graduate to attend the instruction given to the students of the senior years in Medicine, to follow the ward rounds and to go to the out-patient department picking up what he can. The Faculty has opened the courses of instruction given to the higher years in Medicine to any one who cares to attend and refresh his knowledge in this way. A Standing Committee has been appointed whose duty it is to give any graduate interested, advice as to the clinics and lectures which should be taken and to confer with the heads of departments and individual teachers so as to arrange a course in advance for each applicant. Such a course may be modified by the committee if it does not prove suitable.

During each year graduates attend undergraduate courses of this kind

All the library facilities of the University will be open to any post graduate student under the usual conditions

The staff fully realizes that every effort must be made to render the visit of each post-graduate student both pleasant and of real value. Instruction may be obtained as outlined above in the following

- Medicine
- Surgery
- Obstetrics and Gynaecology
- Paediatrics
- Otology, Rhinology, Laryngology
- Ophthalmology
- Preventive Medicine
- Pathology and Bacteriology

The University will impose a minimum fee of \$10.00 per month. This will be imposed for any course of less than a month as a registration fee. In such cases where extended work and attention is required, a special fee to cover the same will be arranged by the committee.

### SPECIAL GRADUATE COURSES

82. The Faculty has during the past years arranged several special graduate courses. A month's course in Paediatrics has been given in July and several short courses in Medicine, Surgery and Obstetrics and Gynaecology, during the vacation months. These courses have been attended by a large number of graduates. The Faculty intends to arrange similar courses each year, but feels prepared at the present time to offer somewhat longer courses of, say, one month, to groups of students who wish instruction in any field of Medicine, if a sufficient number apply for the same. These will be announced from time to time in the bulletin. These courses are intended to be of a practical and useful character, covering a limited field in a thorough manner.

### SHORT COURSES IN RADIOLOGY

83. In order to meet the needs of those graduates in medicine who desire short courses of instruction in Radiology, it has been arranged to provide courses of one month each at the Toronto General Hospital. Classes will be limited and an intensive schedule has been outlined to include

- (a) Radiographic Technique
- (b) Interpretation
- (c) Gastro-Intestinal Examination

In these courses the entire resources of this large clinic will be placed at the disposal of the student in the most practical manner possible.

For full information and terms apply to the Secretary of the Faculty of Medicine, University of Toronto.

### EXTENSION LECTURES

84. By an arrangement with the Ontario Medical Association the Medical Faculty of the University has offered to the profession some 150 lectures on the most important subjects in various fields of medical science. Application for these lectures may be made through the Secretary of the Ontario Medical Association, (from whom a copy of the titles of the lectures may be obtained). Any society or group of physicians may apply for a course of lectures on any subject.

## 85 CURRICULUM FOR THE DIPLOMA OF PUBLIC HEALTH

1 The University provides a Diploma of Public Health (D P H) on the following conditions —

2. Candidates for the Diploma must be graduates in Medicine of this University or some other University recognized for this purpose by the Senate

3 The curriculum leading to the Diploma extends over one Winter Session of eight months and one Summer Session of three months

4 The Winter Session is devoted to —

*Laboratory Courses and Lectures in —*

- (a) Bacteriology
- (b) Sanitary Chemistry
- (c) Parasitology

*and, to attendance at —*

- (d) Clinics for Communicable Diseases
- (e) Psychopathic Clinics
- (f) Venereal Diseases Clinics
- (g) Tuberculosis Clinics
- (h) Well-Baby Clinics
- (i) Ante-Natal Clinics

*and, to Lectures or Practical Work in*

- (j) General Hygiene
- (k) Immunology
- (l) Applied Physiology
- (m) Sanitary Engineering
- (n) Public Health Organization and Legislation, and Vital Statistics
- (o) History of Preventive Medicine and Epidemiology
- (p) Nutrition and Dietetics
- (q) Industrial Hygiene

The Provincial Board of Health of Ontario, the City Health Department of Toronto and the special Clinics at the Toronto General Hospital and the Hospital for Sick Children provide unusual facilities for instruction in the practice of Preventive Medicine

5 The Summer Session is spent in Field Work in Public Health under the supervision of a recognized Department of Health and includes a study of the methods of dealing with communicable diseases, inspections of schools and other public buildings, factories and dairies, inspections of water supplies and sewage disposal plants, food and meat inspection and other forms of municipal sanitation, and medical inspection of school children

6 When the required courses of study have been completed, written and practical examinations will be held on the subjects of the curriculum specified in paragraph 4

7 Candidates who have passed the examinations and who have satisfactorily completed the work specified in paragraph 5 will be granted the Diploma in Public Health

8 The fee for the course, as outlined in paragraphs 3, 4 and 5, is \$150 00, payable in two instalments of \$75 00 each, at the beginning of the Fall Session, and the Winter Session respectively The fee for the Diploma is \$20 00

9 Candidates for the Diploma in Public Health are required to undertake the investigation of an assigned Public Health problem, complete the same and submit the results in the form of a report before being permitted to proceed to the examinations leading to the Diploma

10 Graduates in Medicine, who for a period of two years have been engaged in full-time Public Health work, may, under the following conditions, take the examination specified in paragraph 6, when they have completed the courses required in paragraph 4

The work required in the curriculum may be extended over a period of more than one academic year, and the examinations taken when all courses of study have been completed A yearly fee of \$75 00 payable at the beginning of the Fall Term, must be paid by candidates taking more than one year to complete the required courses (If only one year is taken to complete the work the fee is \$150 00).

11 Candidates who present satisfactory evidence of having completed work, the equivalent of that required in certain of the courses specified in paragraphs 4 and 5, may petition to be granted exemption from attendance on such courses This will apply only in the cases of candidates who have been for at least two years engaged in full-time Public Health work, and who at the time of registration are so engaged.

12 The examination of those qualifying under clause 10 will be held in May and September, for others, in September only



## 86 CURRICULUM FOR THE DIPLOMA OF RADIOLOGY

The Faculty of Medicine, University of Toronto, has instituted a graduate course leading to a Diploma in Radiology

Candidates for the Diploma are required to

- (a) Be graduates in Medicine of this University or some other University recognized for this purpose by the Senate
- (b) Have spent at least one year after graduation as an interne in a recognized hospital

The Curriculum leading to the Diploma extends over one Winter session of eight months

*The session will be devoted to courses in*

## PHYSICS

The instruction in Physics will consist of three courses of lectures accompanied by practical work in illustrative experiments

The lecture courses are as follows

1 *Radiation*

In this course of lectures there will be discussed

- (a) The origin of radiations, (b) the properties of various types of radiation, including infra red, ultra violet and visible rays, (c) absorption of radiations, (d) fluorescence and phosphorescence

2 *Electricity, Magnetism and Roentgen Radiology*

This course of lectures will consist in the treatment of (a) the fundamental idea of charge electricity, difference of potential, electromotive force, capacity, current and inductance, (b) the effects of electrical currents with particular attention paid to electromagnetism and the application of the latter in various measuring instruments, (c) detailed study of the principles underlying motors, dynamos, and other instruments used in X-ray technique, (d) the properties of electrons—the production of X-rays, and the properties and quantitative measurements of these rays

3 *Radioactivity*

This course of lectures will consist of the (a) isolation of radioactive substances, (b) radiations (L B and X-rays) emitted by radioactive substances and quantitative measurements of these three types of rays, (c) properties of radioactive emanations from radium, thorium and actinium, (d) radioactive transmutations generally with applications to selected problems

## RADIOLOGY

(1) *Anatomy*

A detailed study in normal Anatomy from a Radiological aspect in infancy, adult life and old age. The epiphyses, appearance of the skeleton from various angles together with many abnormalities which do not constitute pathological processes, the changes which normally occur in bones and joints with advancing age and in old age. The normal anatomy of the thoracic and abdominal viscera, etc.

(2) *Pathology*

A course in co-operation with the Department of Pathology in which a special study will be made of the pathology of all diseases which come within the range of X-ray and Radium methods either in diagnosis or treatment. In the latter a study will also be made of the histological changes brought about by X-ray or radium applications to various tissues.

(3) *Technique*

A complete course in the technique of Radiography. Ample facilities are provided for the student to personally carry out all procedures and to perfect himself in this side of the work. In the later part of his course he will be expected to take entire charge of one of the operating rooms.

(4) *X-ray Interpretation*

In addition to the daily routine of plate interpretation there is now a classified library of several thousand plates including nearly all the unusual and interesting cases to be met with and these will be studied systematically. There is also an almost unlimited collection of other plates which are available for study.

(5) *X-ray Therapy*

A complete course in Therapy is provided. This will include all aspects of this work from the superficial to the intensive use of voltages up to 250,000 together with the methods of measurement and calculation of all dosages. The material available for this study is very large and diversified.

(6) *Radium*

A course in Radium Therapy which for the present is limited to the use of Radium element.

(7) *Short Courses in Medicine and Surgery*

As in Pathology, so in Medicine, Surgery and Gynaecology, courses will be arranged in collaboration with those Departments for Systematic

lectures and study of the various diseases or conditions under consideration in order that the student may be presented with the entire problem in its broader aspect

Examinations on the subjects of the curriculum will be held at the end of the session

Candidates who have passed the examinations and who present certificates of having satisfactorily completed the work specified will be granted the Diploma in Radiology

# COURSES OF INSTRUCTION

## CHEMISTRY

*Professor of Organic Chemistry and Secretary of the Department of Chemistry*

F B ALLAN

*Professor* F B KENRICK

*Professor of Physical Chemistry* W LASH MILLER

*Associate Professor* J B FERGUSON

*Associate Professor of Electrochemistry* J T BURT-GERRANS

*Assistant Professors* W S FUNNELL, W H MARTIN

*Assistant Professor of Analytical Chemistry* L J ROGERS

*Assistants* MISS E V EASTCOTT, MRS M LUCAS, W G BIRRELL, J D GARRARD, A R GORDON, G I HOOVER, C M JEPHCOTT, M J MULLIGAN, R A PROSSER, E M SPARLING, C W SWEITZER, R B WALKER, A E R WESTMAN

All lectures and practical work will be given in the Chemistry Building

### FIRST YEAR

*Lectures*—Students attend a course of experimental lectures delivered twice a week in the lecture theatre. This course embraces the study of the non-metallic and metallic elements and their principal compounds based on Mendelejeff's classification of the elements. By special arrangement these lectures are given by Professor W R Lang, Head of the Department of Military Studies, and formerly Professor of Chemistry.

*Practical Chemistry*—The laboratory work commences with quantitative and qualitative experiments illustrating the fundamental principles of chemistry, this is followed by work more intimately related to analytical chemistry. Instruction in quantitative methods of analysis is given.

### SECOND YEAR

*Lectures*—A course of lectures on the systematic classification of organic compounds and on elementary physical chemistry, twice a week.

*Practical Chemistry*—A special laboratory course to accompany the above lecture course will be given during the Easter Term.

*Option*—This is a course in volumetric analysis.

Students working in the laboratory are provided with the necessary apparatus on making a deposit of four dollars at the commencement of

the session, which will be returned at its close after the following charges have been deducted from it—

- (1) The cost of all apparatus broken or destroyed
- (2) Any fines for breach of laboratory rules

No certificate will be given for the practical work unless the student has passed the practical examinations conducted during the session

*Text-books* —Modern Inorganic Chemistry, Mellor, Inorganic Chemistry, Newth, General Chemistry for Colleges, Alex Smith, Organic Chemistry, Norris, Physical Chemistry for Physicians and Biologists, Cohen and Fischer, An Elementary Laboratory Course in Chemistry, Kenrick and DeLury

*Books of reference recommended* —Inorganic Chemistry, Richter, Organic Chemistry, Richter

## PHYSICS

*Professor and Director of the Physical Laboratory* J C McLENNAN

*Associate Professors* E F BURTON, JOHN SATTERLY

*Assistant Professors* LACHLAN GILCHRIST, H A McTAGGART

*Demonstrators* COLIN BARNES, MISS K M CROSSLEY, MISS R CARNAHAN,  
MISS F M QUINLAN, A G SHENSTONE

*Assistant Demonstrators* J E CURRIE, A C LEWIS

*Secretarial Assistant* MISS A T REED

The work of instruction on Physics consists of a series of lectures and a course in practical work in the laboratories

### FIRST YEAR

*Lectures* —The lectures on Physics will not only give a concise outline of the subject, but are intended to form a satisfactory foundation for future study in other branches of science

A course of lectures on Practical Mathematics and Mechanics will be given 2 hours a week during the whole year. These lectures, which will be illustrated by many problems, will deal in a systematic way with mechanics, use of curves, logarithms, etc

There will be three lectures in Physics per week during the year, one lecture each week bears directly on the practical work assigned to the student, while the other two lectures each week are part of a course dealing more particularly with the principles of Physics of special use to students of Medicine. The following is an outline of the work covered

## 1 APPLIED MATHEMATICS AND CALCULATIONS

Calculations of experimental results to show limits of accuracy contracted methods logarithms

Trigonometrical ratios defined, and simple relations deduced, reading of tables of sines, cosines and tangents

Graphical methods, equations to straight line and parabola, logarithmic curves, deduction of simple formulae from graphs, slope of curves from graphs

Simple ideas involved in the calculus, illustration of velocity of a falling body from  $s = \frac{1}{2} gt^2$

## 2 MECHANICS

Measuring instruments, length, volume, verniers, micrometers

Forces conditions of equilibrium, resolution of forces, moments, centre of gravity, levers and simple machines

Velocity, acceleration, momentum, force, work and power, absolute and practical units in English and metric systems, mass and weight, value of 'g'

Energy, kinetic and potential, transmutation of energy, law of conservation of energy

Simple harmonic motion, the pendulum, combination of two motions perpendicular to each other, Lissajous figures, Blackburn's pendulum

## 3 HYDROSTATICS AND HYDROMECHANICS

Laws of pressure in fluids at rest, Pascal's Law and Archimedes' principle, specific gravity, the hydrostatic paradox, resultant vertical forces on walls, manometers, barometers, mercury and aneroid Bramah's press, pumps

Archimedes' principle in air, weight of atmosphere

Laws of pressure in fluids in motion, Bernoulli's principle, applications such as atomizer, Bunsen burner, filter pump, action of air in winds and curving of balls in flight

## 4 PROPERTIES OF MATTER

Principles of the kinetic theory of matter, structure of solids, liquids and gases, diffusion, molecules and molecular forces

Elastic properties of solids, bulk modulus, torsion modulus or rigidity, Young's modulus, micro-photographic study of metals, crystallization

Viscosity of fluids, velocity gradient, coefficient of viscosity, Poiseuille's law for tubes, experimental determination of coefficient, Ostwald viscosimeter, viscosity and temperature, relation to blood flow, capillaries

Surface tension, experimental illustrations, definition of coefficient and determination of same, energy of surface, shapes of free surfaces

Laws of gases, theoretical determination of pressure,  $p = 1/3 mnV^2$ , Boyle's Law, Charles' Law, laws of diffusion

Change of state, solid to liquid, liquid to gas, vapour pressure, with measurement, relation to temperature, vapour density, liquefaction of gases, critical temperature and pressure, low temperatures

Colloidal solutions, size of particles, physical properties, mobility, coagulation by electrolytes, Brownian movement and its molecular explanation, confirmation of the kinetic theory, dialysis, relation to body fluids and membranes

## 5. HEAT

Expansion of solids, liquids and gases, thermometers, Centigrade and Fahrenheit scales, absolute scale, maximum and minimum thermometers clinical thermometer

Capacity for heat, calorie, specific heats, latent heat of vaporization and fusion, calorimetry

Heat as energy, mechanical equivalent of heat, Joule's law

Vapour pressure, vapour density, dew point, various forms of hygrometers, relative humidity

Radiation, laws of cooling, wave length of heat radiations, transmission of energy through space Conduction

## 6 ACOUSTICS

Production, propagation and recording of sounds, characteristics of a note, pitch, intensity and quality, definition of wave length, determination of velocity,  $V = n\lambda$ , resonance, stationary waves, organ pipes, laws of strings, membranes, voice production, structure of ear, interference of sound waves, beats and beat tones, absorption and reflection of sound, musical scales

## 7 ELECTRICITY AND MAGNETISM

The fundamental phenomena associated with electrified bodies and the laws of the action of electrical charges The methods of measurement of electrical charge, current, potential, capacity, resistance, conductance and the definition of the units of these quantities in the electrostatic, practical and electromagnetic systems

The construction and action of the instruments used in measuring electrical quantities and the methods of calibrating them These instruments include galvanometers, ammeters, voltmeters, electrometers, potentiometers and wattmeters

The properties of liquid conductors, and the measurement of their conductivity Faraday's laws of electrolysis and the method of determination of the electro-chemical equivalent

The properties and laws of action of magnets and of the magnetic fields associated with a circuit bearing a current, the method of measuring magnetic mass and magnetic field intensity and the definition of the units of these quantities

The method of production, the properties and the measurement of induced currents of varying frequencies and their application

The discharge of electricity through gases, and the factors upon which their conductivity depends, the properties and uses of anode, cathode and X rays

The methods of investigating and identifying radioactive substances  
The properties of radioactive radiations and their uses

## 8 LIGHT

The electron as a source of light waves—nature of the waves—their velocity in free space, water and glass—their reception by the eye Analogies in sound and wireless signalling

Reflection of waves from plane and spherical mirrors—focal lengths of spherical mirrors—images—optical diagrams

Refraction of waves at a plane surface—index of refraction—the critical angle—methods of finding the index Refraction of waves at a spherical surface—foci and focal lengths—the diopetre—power of a lens—images—optical diagrams

*The eye*—Diagram of the eye—accommodation—the normal, myopic and hypermetropic eye—the far point—lens necessary to correct myopia and hypermetropia—astigmatism

*Optical instruments*—The reading lens, compound microscope, telescope, prism binoculars

*Colour*—Variation of refractive index with colour—deviation of light by a prism—dispersion—kinds of optical glass manufactured—achromatic pair of prisms—direct vision spectroscope—colour blindness

*Spectroscopy*—Emission spectra of solids, liquids and vapours or gases—spectrum analysis—absorption spectra—range of ether waves from infra red to ultra violet waves and X-ray waves

*Polarised light*—Polarisation by reflection, by refraction, by natural crystals—the nicol prism—rotation of the plane of polarisation, the polarimeter

*Interference*—Interference of waves—colours in thin films



## 9 PRACTICAL WORK

The Practical Work, consisting of a laboratory course of four hours each week designed to illustrate the principles dealt with in the lectures, will be conducted under the supervision of the Director of the Laboratory

*Text-books* Mechanics and Hydrostatics "Mechanics for the Upper School", Merchant and Chant (Copp Clark), Heat "Senior Heat", Stewart and Satterly (Univ Tutorial Press), "Light and Sound" Duncan and Starling (MacMillan Co), "Electricity and Magnetism" Hutchinson (Univ Tutorial Press)

## OPTIONAL COURSES IN PHYSICS

In accordance with the plan outlined by the faculty optional courses in Physics are offered in years succeeding the first, as follows

## SECOND YEAR

*Advanced Electricity and Magnetism*

PROFESSOR BURTON

This course of 60 hours is designed to follow on the work in electricity of the first year course. Special emphasis is laid on conduction through liquids and allied phenomena

## THIRD YEAR

*Colloidal Solutions and Ionisation and Electrical Conductivity of Gases*I *Colloidal Solutions*

PROFESSOR BURTON

A course of thirty hours lectures and demonstrations on the preparation of colloidal solutions and the study of their properties

II *Ionisation and Electrical Conductivity of Gases* PROFESSOR GILCHRIST

A course of thirty hours lectures and demonstrations

## FOURTH YEAR

*Acoustics and Optics*I *Acoustics*

PROFESSOR BURTON

A course of thirty hours lectures and demonstrations in advanced acoustics

II *Optics*

A course of thirty hours lectures and practical demonstrations on advanced optics

FIFTH YEAR

*Radiation and Radioactivity*

PROFESSOR MCLENNAN

A course of sixty hours on radiations and their properties followed by practical work

SIXTH YEAR

*Radiology*

PROFESSOR GILCHRIST

A course of sixty hours lecture and laboratory work on Radiology

**REGULATIONS**—Deposit Fee Each student taking the laboratory course is required to make a deposit of three dollars (\$3 00) before beginning work. All supplies, apparatus broken or destroyed and all fines will be charged against this deposit, which must be renewed when exhausted. At the close of the session cash balances will be returned on a day appointed for the purpose.

BIOLOGY

*Professor of Zoology* B A BENSLEY

*Professor of Histology and Embryology* W H PIERSON

*Associate Professor of Biology* E M WALKER

*Assistant Professor in Vertebrate Embryology* A F COVENTRY

*Assistant Professor in Limnobiology* W A CLEMENS

*Assistant Professor in Experimental Biology and Genetics* J W MAC-ARTHUR

*Lecturer in Comparative Anatomy and Neurology* E H CRAIGIE

*Lecturer in Mammalian Anatomy* W H T BAILLIE

*Class Assistants* H H MACKAY, G C BROWN, F B WILSON, MISS O. MONKMAN, A E McCULLOCH

*Secretarial Assistant* MISS H C FORD

FIRST YEAR

**Lectures**—1 Students of the First Year will attend a course of ninety lectures to be given three times a week during the session. The lectures will serve as an introduction to the biological fields in relation to medicine. The topics include (1) the general nature of living organisms and of cell processes, (2) the types of lower organisms of interest to students of Medicine, (3) an introduction to the anatomy and development of the mammalian organ systems, and (4) biological principles as applied to man.

**Practical Work**—2 A course of one hundred and eighty hours, comprising two three-hour periods per week, the materials of which are based as far as possible on Lecture course I. The work comprises microscope practice, elementary experimental studies on the nature of cell processes, types of lower organisms, and a selected list of vertebrates, including the elements of mammalian anatomy.

## SECOND YEAR

1 *Option*—A course on the principles of evolution, heredity and eugenics in relation to medical and sociological problems

## THIRD YEAR

1 *Option*—A course of seventy-five hours laboratory work on embryology, including technique, with special reference to the problems of mammalian embryology

2 *Option*—A course of seventy-five hours laboratory work on advanced histology and cytology, including technique

3 *Option*—A course of lectures and laboratory work on the structure and life history of animal parasites, particularly those which infest man

4 *Option*—A co-operative course of lectures and conferences dealing with current biological literature and problems

5 *Option*—A course of lectures and laboratory work on the structure and development of the vertebrate nervous system

*Text-books* Biology O'Donoghue, Shull, Borradaile, McFarland, Bigelow, Parker

Embryology McMurrich, Manual of Embryology, Bailey and Miller, Prentiss and Arey

Mammalian Anatomy Bensley, Practical Anatomy of the Rabbit

Histology Jordan, Text-book of Histology, Schäfer, Text-book of Microscopic Anatomy (Quain's Anatomy, 11th edition, vol II, pt 1), Lee  
Microtome's Vade Mecum, 8th ed, Sharp, Introduction to Cytology,

Parasitology Chandler, Animal Parasites and Human Disease

Heredity Morgan, The Physical Basis of Heredity

## RELATION OF SCIENCE TO CIVILIZATION

## FIRST YEAR

*Lectures*—The greater part of the assigned time of 60 hours will be devoted to a course of lectures designed to illustrate the influence which scientific thought and achievement have had on the development of modern civilization. The lectures will be given jointly by several lecturers, but the course as a whole will be under the general direction of Professor Huntsman

## EXPRESSION

*Instructors* E L DANIELER, J F VANEVRY

## FIRST YEAR

*Tutorial Classes*—In this course instruction will be given in the correct use of written and spoken English, and opportunity will be afforded each student to acquire experience in public speaking

In order that the instruction may be as thorough as possible, the class will be divided into several groups, each of which will meet once a week

## PHYSIOLOGY (INCLUDING GENERAL PHYSIOLOGY)

*Professor of Physiology* J J R MACLEOD*Associate Professor of Physiology* J M D OLMSTED*Assistant Professor* N B TAYLOR*Demonstrators* M J WILSON, F N ALLAN*Fellow* A C TAYLOR*Part-time Fellows* J HEPBURN, W P WARNER, H D LOGAN, R S LANG,

N A MCCORMICK, E C NOBLE

*Librarian* MISS M GRANGE*Secretarial Assistant* MISS M E ARMOUR.

The following courses of instruction each extending throughout the session are offered

- 1 Systematic lectures, three a week during term
  - a General and neuro-muscular physiology
  - b Physiology of circulation, respiration, digestion and secretion.
  - c Metabolism, the functions of the ductless glands and reproduction.
  - d Physiology of the central nervous system and special senses
- 2 Lectures in General Physiology
- 3 Advanced lectures, two a week (optional)
- 4 General laboratory courses (total of 180 hours)
  - a. Neuromuscular Physiology (second year)
  - b. Circulation, respiration and digestion (second and third years)
  - c Nervous system and special senses (third year)
  - d Reviews and Conferences
- 5 Laboratory course in General Physiology
- 6 Advanced laboratory courses (optional)
7. Research in Physiology
8. Journal Club, one hour a week.
- 9 Optional course Laboratory work in selected parts of subject (available to students of the third and subsequent years in the Medical faculty)
- 10 History of Physiology A course of lectures supplemented by discussions towards which the students contribute

Every student must attain a certain standard in the laboratory exercises before he will be allowed to proceed to the University examinations in Physiology

Throughout the Session oral and, as may be necessary, written examinations will be held to ascertain the extent of the student's knowledge of Physiology, and the results of these, as well as his general work in the laboratory will be used to determine his position in the University Class Lists

In the laboratory courses the students will be required to make good all loss through breakage or otherwise

*Text-books* —Manual of Physiology, G N Stewart, Physiology and Biochemistry in Modern Medicine, J J R Macleod, Starling's or Howell's Physiologies, Bayliss' General Physiology, Luciani's Physiology (translated by F Welby), Monographs in Physiology (edited by B H Starling)  
*Works of Reference* —Other works important for consultation are Marshall's Physiology of Reproduction, Schäfer's Endocrine Organs, Text-Book of Physiology (edited by E A Schafer), Recent and Further Advances in Physiology (edited by Leonard Hill), C S Sherrington, Mammalian Physiology

Students are urged to become members of the Students' Medical Library from which they may borrow, for home reading, books and monographs bearing on the subject of Physiology

## BIOCHEMISTRY

*Professor of Biochemistry* ANDREW HUNTER  
*Associate Professor of Biochemistry* HARDOLPH WASTENEYS  
*Associate Professor of Zymology* H B SPEAKMAN  
*Demonstrator in Biochemistry* MISS J MCFARLANE  
*Fellows* J A MORRELL, G S EADIE, J A DAUPHINCE,  
 G M MCFARLANE  
*Secretarial Assistant* MISS M DELAMERE

The following are the Courses of Instruction in this department for students of Medicine

### THIRD YEAR

*Lectures* —A course of lectures—three a week—covering in an elementary way the general field of Biochemistry

*Laboratory* —An introductory laboratory course in Biochemistry, six hours weekly in the Michaelmas, and three in the Easter term

*Tutorial* —One hour weekly, reviewing and supplementing in the main the work of the laboratory

### FOURTH, FIFTH AND SIXTH YEARS

*Optional* —A laboratory and lecture course, of two to five hours a week, dealing with one or more of the following topics (1) the principles of nutrition, (2) hydrogen ion concentration and its importance in biology, (3) the action and properties of enzymes

Every student must attain a certain standard in the laboratory exercises before he will be allowed to proceed to the University examinations in Biochemistry

Throughout the Session oral and, as may be necessary, written examinations will be held to ascertain the extent of the student's knowledge of Biochemistry and the results of these as well as his general work in the laboratory, will be used to determine his position in the University Class Lists

In the laboratory courses the students will be required to make good all loss through breakage or otherwise

*Text-Books and Works of Reference*

(a) *Elementary or General* —Hammarsten, Text-book of Physiological Chemistry, Abderhalden-Hall, Text-book of Physiological Chemistry, Mathews, Text-book of Physiological Chemistry, Robertson, Principles of Biochemistry, Rockwood's Laboratory Manual of Physiological Chemistry

(b) *Advanced or Special* —Monographs on Biochemistry, edited by Plimmer and Hopkins, Robertson, Physical Chemistry of the Proteins, Taylor, Digestion and Metabolism, Lusk, Science of Nutrition, Effront, Biochemical Catalysts in Life and Industry, Euler, General Chemistry of the Enzymes, Abderhalden, Biochemisches Handlexikon, Neuberg, Der Harn

*Laboratory Handbooks*

(a) *Elementary* —Plimmer, Practical Organic and Biochemistry, Hawk, Practical Physiological Chemistry, Folin, Laboratory Manual of Biological Chemistry, Halliburton, Essentials of Chemical Physiology, Cole, Practical Physiological Chemistry

(b) *Advanced* —Abderhalden, Handbuch der biochemischen Arbeitsmethoden, Ellinger, Analyse des Harns

## ANATOMY

*Professor and Director of the Anatomical Department* J PLAYFAIR  
McMURRICH

*Professor of Histology, Embryology and Anatomy* W H PIERSON

*Associate Professor in Anatomy* J C WATT

*Assistant Professor of Anatomy and Neurology* E A LINNELL

*Demonstrators in Anatomy* H A CATES, H G WILLSON

*Demonstrators in Anatomy* A S LAWSON, E E SHOULDICE, W A  
COSTAIN, E A MCCULLOCH, H G ARMSTRONG, G J GILLAM,  
LILLIAN A CHASE, B M KOSTER, W E L SPARKS, A L HUETHER,  
W B DICKSON

*Demonstrators in Histology and Embryology* H G ARMSTRONG, H D  
BALL, B GUYATT, J M MACDONALD, A G MCPHEDRAN, H H  
MACKAY, O C J WITHROW

*Richardson Fellow* W C M SCOTT

*Research Assistant* MARY I TOM

*Secretarial Assistant* MISS G H DOWSLEY

## REQUIRED COURSES

## SECOND YEAR

**Course 1 *Gross Anatomy***—During the Second Year each student is obliged to dissect thoroughly the various regions of the body, following the plan outlined in a "Guide to the Dissection of the Human Body." Demonstrators will be in attendance each day for the purpose of superintending the work and of giving instruction, and will hold frequent examinations with the object of testing the student's progress. Certificates of credit in Practical Anatomy will be granted only to those students whose work has been completed to the satisfaction of the instructors in charge.

The Laboratory will be open from 9 a.m. every week-day through the session, with the exception of Saturdays when it will be closed at 12 noon.

In connection with the laboratory work lectures will be given by members of the staff, reviewing the work that has been completed. The object of these lectures will be to supplement the work in the Laboratory by calling attention to the relations and significance of the parts that have been studied and by elucidating with the aid of diagrams and models the anatomy of difficult and important structures.

**Course 2 *Histology and Embryology***—During the Second Year a course of sixty lectures and two hundred hours laboratory work is given on the development of the body and its tissues, and on the microscopic anatomy of its organs.



## THIRD YEAR

Course 3 *Neurology*—During the Michaelmas Term of the Third Year a course of lectures will be given on the Anatomy of the Central Nervous System

In connection with the above course of lectures the class will be divided into small sections, to each of which a Demonstrator will be assigned, for the purpose of a practical study of the Anatomy of the Brain

Course 4 *Topographic Anatomy*—During the Easter Term of the Third Year a course of lectures will be given dealing with the anatomy of special regions or organs. This course is intended to be supplemental to Course 1, attention being given to the practical applications of the structure and regional anatomy of the parts considered

## OPTIONAL COURSES

These courses are designed for those students who may desire a more intensive study of certain systems or organs than is afforded by the required course. They are open to those who have completed the second, or in some cases, the third year of the Medical Course. All the courses listed will not be offered in any one year, but selections will be made from them according to the demand and to the facilities of the Laboratory. The time required for each course will be the equivalent of two hours per week throughout the year.

Course 5 *General Gross Anatomy*—This course is designed to give opportunity for a review of the Gross Anatomy of the Human Body. It is based largely on the study of sections and is open to students who have completed the second year of the Medical Course.

Course 6 *Embryology*—A course of seventy-five hours laboratory work (including technique) with special reference to the problems of mammalian and human embryology. Open to students who have completed the second year of the Medical Course.

Course 7 *Cytology*—A course of seventy-five hours laboratory work on advanced vertebrate histology and cytology, including technique. Open to students who have completed the second year of the Medical Course.

Course 8 *Anatomy of the Joints*—A study of the anatomy and actions of the joints, with especial reference to the anatomy of dislocations. Open to students who have completed the second year of the Medical Course.

Course 9 *Anatomy of the Digestive System*—This course will include an intensive study of the development, minute structure and gross anatomy of the organs of the digestive system. The complete course will extend throughout two years, but either portion of it may be elected. Open to students who have completed the second year of the medical course.

Course 10 *Anatomy of the Genito-Urinary Organs*—An intensive study of the development, minute structure and gross anatomy of the Urinary and Genital organs Open to those who have completed the *second* year of the Medical Course

Course 11 *The Anatomy of the Sense Organs*—Intended especially for those who intend to specialize in Ophthalmology and Oto-laryngology Open to students who have completed the *third* year of the Medical Course

Course 12 *Anatomy of the Lymphatic System*—A study of the development, structure and distribution of the Lymphatic organs and with special attention to their medical and surgical significance Open to students who have completed the *fourth* year of the Medical Course

Course 13 *Research Course*—Opportunities will be afforded properly qualified students for carrying on investigation in anatomical problems Arrangements for this Course must be made with the Professor of Anatomy

*Text-books*—Piersol, Gray, Morris, Cunningham's Text-book, Guide to the Dissection of the Human Body for the use of Students in the Anatomical Laboratory of the University of Toronto, Jordan, Text-book of Histology, Piersol, Normal Histology, Bailey, Text-book of Histology, McMurrich's Development of the Human Body, Bailey and Miller, Text-book of Embryology, Prentiss and Arey, Text-book of Embryology

*Reference Text-books*—Spalteholz, Hand-Atlas of Human Anatomy, Toldt's Atlas of Human Anatomy, Sobotta's Atlas and Text-book of Human Anatomy, Eycleshymer and Shoemaker, Cross-Section Anatomy, Quain's Anatomy, Barker's The Nervous System, Johnston, Nervous System of Vertebrates, Villiger, Brain and Spinal Cord, Herrick, Introduction to Neurology, Ranson, Anatomy of the Nervous System, Tilney and Riley, The Form and Functions of the Nervous System, Von Bardeleben's Handbuch der Anatomie, Rawlings, Landmarks, Treves, Applied Anatomy, Davis, Applied Anatomy, Beesley and Johnston, Surgical Anatomy, Whitnall, Anatomy of the Human Orbit, Schaffer, Anatomy of the Nose, Schafer, Microscopic Anatomy (in Quain's Anatomy, 11th edition, Vol. 11, Part 1), Kerbel and Mall, Human Embryology, Lee, Microtome's Vade mecum, 8th edition

## PHARMACY AND PHARMACOLOGY, MATERIA MEDICA

*Professor* V E HENDERSON*Demonstrators* W G MACKERSIE, L J BONHAM*Demonstrator in Pharmacy* MISS J DEAS*Class Assistants in Pharmacy* J A MACDONALD, J C HALLAMORE,  
K MULDOON*Class Assistants in Pharmacology* F W W HIPWELL, N C SHARPE*Secretarial Assistant* MISS D MANNING

## THIRD YEAR

Two courses of laboratory work accompanied by lectures and laboratory talks are given

*Practical Work*—LABORATORY COURSE I Experimental pharmacology In this course the student obtains an opportunity to become familiar with representatives of the drug-stuffs composing the various pharmacological groups The chief object of the course is to get the student into the habit of accurate observation of the effects produced by drugs and to be able to describe them in accurate pharmacological language In consequence a great deal of attention is given to the note books kept by each student The course is accompanied by many mammalian demonstrations The tracings of all demonstrations are analysed by each student

LABORATORY COURSE II Practical Pharmacy This course is very brief, consisting only of a few hours' work on the chemical and physical incompatibles and in dispensing several mixtures, pills and ointments, in order that the student may obtain such insight into dispensing as is necessary to enable him to write prescriptions intelligently

Total of these two courses, 90 hours

Arrangements have also been made with the Toronto General Hospital, the Hospital for Sick Children and the Western Hospital, by which the students of this year will be drafted in turn to act as Assistants in the Hospital Dispensaries for a period of a week

*Lectures*—A course of lectures on general pharmacology (35 in all) This course is designed to supplement and extend the knowledge gained in the laboratory and from the prescribed text-book

*Prescription Writing*—Each student is expected to hand in answers to the problems in prescription writing announced each week. These are corrected and returned, and opportunity is given for the discussion of any difficulties, with the staff during laboratory hours Informal talks are also given from time to time as needed

*Text-books*—Pharmacy and Materia Medica, Henderson, Pharmacology, Dixon, Applied Pharmacology, A J Clark

*Reference Text-books*—Pharmacology, Cushny, Solimann, Bastedo, Greene, Prescription Writing—Bennett, Medical and Pharmaceutical Latin, Eggleston, Prescription Writing, Materia Medica and Prescription Writing, Bethea

# TOXICOLOGY

*Professor of Pharmacology* V E HENDERSON

A course of ten lectures is given dealing with the pathology, pharmacology, symptomology and treatment of the more important poisons which are commonly the cause of either forensic or industrial cases of poisoning

# MEDICINE

*Emeritus Professor of Medicine* ALEXANDER MCPHEDRAN

*Professor of Medicine* DUNCAN GRAHAM

*Associate Professor of Medicine* WILLIAM GOLDIE

*Assistant Professors of Medicine* F A CLARKSON, G HOWLAND (in charge of Neurology), J OILLE, D KING SMITH (in charge of Dermatology)

*Associates in Medicine* J H ELLIOTT, J D LOUDON, H C PARSONS, G S STRATHY, G S YOUNG

*Senior Demonstrators in Medicine* R G ARMOUR, G F BOYER, W R CAMPBELL, A H W CAULFEILD, E E CLEAVER, H K DETWEILER, A A FLETCHER, N B GWYN, B HANNAH, H S HUTCHISON, R A JAMIESON, A J MACKENZIE, A G MCPHEDRAN, J H MCPHEDRAN, W F MCPHEDRAN, L MURRAY, W E OGDEN, T J PAGE, F W ROLPH, CHAS SHEARD, Jr, E J TROW

*Junior Demonstrators in Medicine* G BATES, E A BROUGHTON, H A DIXON, J HEPBURN, W R HODGE, F S PARK

*Fellow* W P WARNER

*Clinical Microscopy* { *Senior Demonstrator* G W LOUGHEED  
*Junior Demonstrator* E S JEFFREY

*Technical Assistants* C G DIX, MISS M HANNA

*Secretarial Assistant* MISS S H CLUTTON

# FOURTH YEAR

*Lectures* —Two lectures are given weekly during the session on methods of physical examination, the explanation and interpretation of physical signs and history taking. The course is concluded by an introduction to the study of Medicine, dealing with the physiological aspects of disease. One lecture is given weekly on Applied Anatomy.

*Clinics* —The class is divided into small groups, each of which is in charge of a clinician who instructs a different group each trimester. Practical instruction is given four hours a week in methods of physical examination and history taking in the wards of the hospital.

*Clinical Microscopy* —One lecture is given weekly throughout the session on Clinical Microscopy. Once a week, during the session, each group of students receives practical instruction in the laboratory in blood counting and the microscopical examination of blood, urine, faeces, stomach contents, sputum, cerebro-spinal fluid, transudates and exudates.

Instruction in bed-side clinics and in clinical microscopy follows as closely as possible the work discussed in the lectures of the previous week

*Instruments*—Students beginning clinical work are strongly advised to supply themselves with the following instruments Stethoscope, Tape Measure, Dermograph, Haemocytometer (Burker-Neubauer), Haemoglobinometer (Dare or Sahli), Thermometer, Head-mirror, Ophthalmoscope, Laryngoscope, Microscope with Condenser and Oil Immersion Lens

Special arrangements have been made for obtaining these instruments (See Page 18)

*Text-books*—Physical Diagnosis, Cabot, Rose, Clinical Methods, Hutchison and Rainy, Clinical Laboratory Diagnosis, Morris, Emerson, Wood, The Examination of the Patient, Foster, Medicine, Osier, Stevens, Taylor, Pathological Physiology, Hewlett

#### FIFTH YEAR

*Lectures*—A weekly lecture is given on the different types of disease One lecture is given weekly on Applied Anatomy

*Clinics*—The class is divided into small groups for clinical instruction in the wards of the hospital Three bed-side clinics on different types of disease are given weekly throughout the session The students devote three hours weekly to taking histories, examining patients and carrying out the clinical laboratory investigation of their cases under the direction of the Staff

A weekly clinic is held in the hospital amphitheatre, at which selected cases illustrating different types of disease are presented

Groups consisting of one-sixth of the Year attend, twice a week for a period of ten weeks, clinical demonstrations on Infectious Diseases at the City Isolation Hospital and the Hospital for Sick Children

During the session each student is required to prepare at least three complete records of medical cases These records must be certified as satisfactory by the clinician in charge of the clinic of which the student is a member

#### SIXTH YEAR

In the Final Year the class is divided into three groups—Medicine, Surgery and Specialties For a period of ten weeks each group devotes its whole time to Clinical Medicine

Under the supervision of the Staff each student takes charge of a certain number of cases in the wards of the hospital He is required to take a clinical history, make a complete physical examination and a routine laboratory examination of each case under his charge, and follow its progress and treatment while in hospital

The class in Clinical Medicine is divided into smaller groups for bed-side instruction and work in the Medical Out Patient Department Four bed-side clinics are given weekly at which students report the examination of the cases under their charge This is followed by a clinic on the diagnosis, progress and treatment of selected cases

Each clinic group attends the Medical Out Patient Department twice a week. Here the student is responsible for taking a clinical history and making a physical examination of all new cases. Upon the completion of this examination a member of the Staff discusses with him the diagnosis and treatment of the case.

Through the Social Service Department of the Hospital the Staff obtains information as to the social, hygienic and economic conditions of the patients' homes, which is of the greatest value in the diagnosis and treatment of individual cases. With their assistance homes are visited, abnormal conditions remedied and patients discharged from hospital are encouraged to return for periodic examinations. In this manner the student is afforded an opportunity of observing the results of treatment and the effects of social, hygienic and economic factors in the treatment of disease.

Two theatre clinics are given weekly to all students of the Final Year at which cases are presented and the diagnosis, prognosis, prevention and treatment of various diseases discussed.

*Special Lectures and Clinics*—The general course of clinical instruction in Tuberculosis, Venereal Disease and Diseases of the Skin is supplemented by special lectures and clinics.

*Tuberculosis*—Ten lectures are given on the diagnosis, prognosis, prevention and treatment of tuberculosis. Each student attends nine Out Patient clinics on tuberculosis—six at the Toronto General Hospital and three at the Hospital for Sick Children. Both in lectures and clinics particular attention is paid to the early diagnosis of pulmonary tuberculosis, the examination of contacts, the methods for the prevention of the disease and its treatment in the home or sanitarium.

*Diseases of the Skin*—In addition to six lectures on diseases of the skin each group in the Final Year attends fifteen Out Patient clinics on adults and five on children.

*Venereal Disease*—Three lectures are given on the prevention and general principles of treatment of venereal disease, and the functions of a Venereal Clinic. Each clinic group attends in rotation five special Out Patient clinics on syphilis and takes part in the examination and treatment of cases.

*Clinical Pathological Conference*—A weekly clinical pathological conference is held, at which students are required to report the results of their clinical examination of fatal cases under their care. This is followed by a demonstration of the autopsy specimens and a discussion of the clinical and pathological findings.

#### FIFTH AND SIXTH YEARS

*Text-books*—Diseases of the Chest, Norris and Landis, Principles and Treatment of Heart Affections, Mackenzie, Clinical Disorders of the Heart-beat, Lewis, The Soldier's Heart and the Effort Syndrome, Lewis,

Diseases of the Digestive Canal, Cohnheim, Clinical Examination of the Nervous System, Krohn, Diseases of the Nervous System, Purves-Stewart, Diabetes Mellitus, Joslin, Diseases of the Skin, Sequeira, Pulmonary Tuberculosis, Fishberg, Diagnostics and Treatment of Tropical Diseases, Stitt, Food for the Sick, Strouse and Perry

*Reference Books*—A System of Medicine (11 volumes), Allbutt and Rolleston, Modern Medicine (5 volumes), Osler and McCrae, Monographic Medicine (6 volumes), Barker, Oxford Loose Leaf Medicine (6 volumes), Christian and MacKenzie, Nelson's Loose Leaf Medicine (7 volumes), Internal Medicine (3 volumes), Wilson, Diseases of the Heart, Mackenzie, Diseases of the Heart and Aorta, Hirschfelder, Diseases of the Arteries and Angina Pectoris (2 volumes), Allbutt, Clinical Medicine, Barker, The Form and Functions of the Central Nervous System, Tilney and Riley, Diseases of the Nervous System, Jelfe and White, Diseases of the Skin, Morris, Macleod, Stelwagon and Gaskill, Hartzell, Schamberg, Pussey, Studies in Deficiency Disease, McCarrison, Endocrinology and Metabolism (5 volumes), Barker, Diseases of the Digestive System (2 volumes), Bassler

## PAEDIATRICS

*Associate Professor of Medicine, in Charge of Paediatrics* ALAN BROWN

*Associate in Paediatrics* A W CANFIELD

*Senior Demonstrators in Paediatrics* A P HART, E A MORGAN, G R  
PIRIE, G E SMITH

*Junior Demonstrators in Paediatrics* GLADYS BOYD, ROY SIMPSON, F F  
TISDALL

*Special Research Fellow in Paediatrics* G A DAVIS

*Chemist to the Sub-Department of Paediatrics* ANGELIA M COURTNEY

*Assistant Chemist* IDA F MACLACHLAN

*Secretarial Assistant* KATHLEEN L HEAD

## FIFTH YEAR

Students of the Fifth Year devote most of their time to learning the essential principles of Paediatrics, and the difference in the manifestation of disease between adult and child. A series of thirty-two theatre clinics is given, illustrated by plates, lantern slides, morbid specimens and by the presentation of patients when the nature of the subject under discussion makes it desirable. Among the subjects included in these theatre clinics are (1) the physiology and pathology of digestion in infants, (2) percentage and caloric method of feeding, (3) classification of digestive disturbances, (4) deficiency diseases of childhood, (5) congenital and acquired cardiac disease, (6) tuberculosis, (7) syphilis, (8) nephritis, (9) acute conditions arising in the newborn infant, (10) child welfare

## SIXTH YEAR

Students of the Sixth Year devote their whole time to clinics—bed-side and Out Patient. In addition to this each student is required to spend seven hours in one of the child welfare clinics conducted by the Department of Child Hygiene. In these clinics he is given an idea of the normal feeding and growth of infants and children. During the Sixth Year Course three hours' practical work is required of each student in the milk modifying laboratory of the Hospital for Sick Children, where he is taught the home modification of milk formulae.

*Fellowships*—The Sub-Department of Paediatrics is prepared to offer to graduate students two full-time Fellowships in Paediatrics. These Fellowships include a certain amount of clinical work as well as laboratory investigation, thus serving to keep the research worker in touch with clinical problems and further his interest in Clinical Paediatrics.

*Text-books*—(1) Diseases of Infancy and Childhood, Holt, (2) Infant Feeding, Grulee, (3) Simplified Infant Feeding, Dennet, (4) The Normal Child—its Care and Feeding, Alan Brown.

*Reference Books*—(1) Diseases of Children, Garrod, Batten and Thursfield, (2) Common Disorders and Diseases of Childhood, Still, (3) Management of the Sick Infant, Porter and Carter, (4) System of Paediatrics (3 volumes), Dunn, (5) Diseases of Nutrition and Infant Feeding, Morse and Talbot, (6) Practical Infant Feeding, Hill.

## THERAPEUTICS

*Professor of Therapeutics* R. D. RUDOLF

*Lecturer in Anaesthesia* S. JOHNSTON

*Senior Demonstrators in Therapeutics* C. E. C. COLE, W. V. WATSON

*Fellows* F. M. R. BULMER, W. E. BROWN

*Junior Demonstrators in Anaesthesia* T. R. HANLEY, W. H. CARVETH, C. H. ROBSON, J. J. HURLEY, H. J. SHIELDS, W. R. PARKS

Therapeutics is taught in the two final years, and is made as practical as possible.

## FIFTH YEAR

*Lectures*—In the Fifth Year a course of lectures is given in which the general principles of the subject are considered in a systematic way, emphasis being laid upon the fact that Therapeutics includes far more than the employment of drugs. The whole matter is considered more from the standpoint of disease than from that of drugs and other remedies. Diet, specific therapy, hydrotherapy, the various forms of physio-therapy, and climate are also dealt with. Once a week one-third of the class are given a practical demonstration at the hospital of methods of therapy, patients being freely used to illustrate the points.



## SIXTH YEAR

*Clinical Work*—In the final year the students are taken in groups at the General Hospital and the different methods of dealing with diseased conditions are demonstrated and discussed, geneially upon actual patients. Here also prescription writing is practised. These meetings are quite informal and are conducted five times a week in the medical theatre at the hospital and in the wards, the Socratic method being largely used.

Besides having lectures in the Fifth Year and demonstrations in the Final Year on Anaesthesia, each student is required to give six anaesthetics before graduating.

*Text-books*—Hare's Practical Therapeutics, Rudolf's Medical Treatment, Dudley W Buxton, Anaesthetics, J W Gwathmey, Anaesthesia, J Blumfield, A Practical Handbook of Anaesthesia, H Bellamy Gardner, Manual of Surgical Anaesthesia.

*Reference Text-books*—Hutchinson & Collier's Index of Treatment, Friedenwald and Ruhrah, Diet in Health and Disease, Wood, Therapeutics, its principles and practice, Potter, Ortner's Treatment of Internal Diseases, Cushny, Pharmacology and Therapeutics, Shoemaker, Materia Medica and Therapeutics, Hare, System of Therapeutics, Forchheimer's Therapeutics of Internal Diseases, Da Costa, Medical Treatment, Osborne's Principles of Therapeutics, Rendle Short's Prognosis and End-results of Treatment, Sajou, Analytic Cyclopaedia of Practical Medicine, Oxford Index of Therapeutics (Sorapure), Stevens' Therapeutics.

# SURGERY AND CLINICAL SURGERY

*Professor of Surgery* CLARENCE L. STARR

*Professors of Clinical Surgery* A PRIMROSE, H A BRUCE, F N G STARR

*Associate Professor of Clinical Surgery* P W H MCKEOWN

*Assistant Professors of Clinical Surgery* W E GALLIE, WARNER W JONES,  
A H PERFECT

*Associates in Surgery and Clinical Surgery* C B SHUTTLEWORTH, G  
SILVERTHORN, E S RYERSON, WALLACE SCOTT, N S SHENSTONE,  
G E WILSON

*Demonstrators in Clinical Surgery* A B WRIGHT, M H V CAMERON,  
R E GABY, D E ROBERTSON, OLIVER MABEE, ROBIN PEARSE,  
R R GRAHAM, H E CLUTTERBUCK, C B PARKER, R I HARRIS

*Junior Demonstrators* C H HAIR, G C MCINTYRE, T A ROBINSON,  
R H THOMAS, A B LEMESURIER, W A COSTAIN, J H WOOD,  
R A McCOMB, J C MCCLELLAND, E E SHOULDRICE, H W WOOKEY,  
T A J DUFF, R M JANES, J W ROSS, J L McDONALD

*Fellow in Surgery* K G MCKENZIE

*Secretarial Assistant* MISS R ROSS

## FOURTH YEAR SURGERY

1 *Lectures*—A course consisting of an introduction to the general principles of surgery

### 2 *Clinical Work*

(a) Clinical study in the Out-patient Department or the Ward Each clinical class will be taught the surgical conditions following, with History Taking, Surgical Landmarks, and the methods of making physical examinations as applied to them Inflammation, Suppuration and Abscess, Surgical conditions of the skin and subcutaneous tissues, Bursitis, Tenosynovitis, Surgical affections of the Lymph Glands, Wounds, Haemorrhage and Thrombosis, Sepsis, infection and infectious diseases, Ulceration, Gangrene, the general features of Fractures, Dislocations and Sprains, Hernia, Bandaging

These conditions shall constitute the subjects of examination

(b) A course of surgically applied clinical anatomy Part of this course will consist of a series of clinical lectures in the theatre of the Toronto General Hospital Regional anatomy will be studied and illustrated by patients suffering from surgical conditions in different parts of the body The anatomy of the different regions will be demonstrated by diagrams upon the blackboard, by frozen sections, and by the use of the lantern There will be also a series of demonstrations of the anatomy of surgical conditions, including fractures, sprains, dislocations, injuries and infections of the soft structures, etc., carried on with small groups in the Anatomical Building in a unit set apart for the Surgical Department

(c) A series of demonstrations in surgical pathology. These demonstrations will be conducted conjointly by the clinicians and the pathologist and will consist of elementary demonstrations of the gross pathology, the histology, the bacteriology and the analyses of the blood, urine, etc., including not only microscopic findings, but the pathological chemistry necessary for complete clinical investigation. Individual types will thus be presented for the purpose of illustrating the steps necessary in the clinical study of surgical cases as indicated in the gross pathology together with the microscopic and chemical findings.

(d) Demonstrations to small groups of students will be conducted in minor surgery and bandaging. In this series instruction will be given in names and uses of various instruments and equipment used in surgery. Material and methods of preparation and use of various dressings, bandages, and splints will be demonstrated.

#### FIFTH YEAR SURGERY

1 *Lectures*—Thirty lectures are given throughout the session on some of the general principles of surgery. Short courses are included on the special surgery of certain regions of the body, *e.g.*, the abdomen, the head and neck, the extremities, etc., the courses varying from year to year.

2 *Clinical Work*—(a) Clinical work in the wards will be conducted according to the time-table provided. During the year the student is taught to make a complete examination of surgical cases in order that he may be able to arrive at a diagnosis and to learn the appropriate scientific treatment. The following conditions will be studied and will be, as far as possible, the subjects of the clinics: (1) Injuries and diseases of the bones and joints, (2) the surgery of the neck, acute and chronic inflammation, primary and secondary new growths, diseases of the thyroid gland, (3) surgery of the thorax, empyema, tumours of the breast, (4) surgery of the abdomen, appendicitis, cholecystitis, ulcer of the stomach and duodenum, cancer of the stomach, general peritonitis, tuberculous peritonitis, gall stones, acute and chronic intestinal obstruction, abdominal injuries, haemorrhoids, fistula in ano, anal fissure, (5) the surgery of the kidney, stone, pyonephrosis, surgical conditions of the bladder and use of the cystoscope, (6) the surgery of the scrotum and testes, acute and chronic inflammation, tumours, hydrocele, varicocele, (7) the surgery of mouth, ulcers, tumours of the lip, tongue and gum, tumours of the upper and lower jaw, (8) diseases and injuries of blood and lymph-vascular systems, (9) surgery of the extremities including fractures, amputations, dislocations, injuries to joints, and injuries to nerves, (10) injuries and diseases of the head and spine.

A special course in orthopaedic surgery will be given in the Hospital for Sick Children.

(b) Each student will be required to take three complete surgical histories during the year. Each history is to be written in accordance with the standard of the American College of Surgeons. This work will be directed by the resident or senior house-surgeon. One history is to be left at the secretary's office at the end of each trimester. Each such history is to be annotated and initialed by the clinician, and after revision by the student to be examined by the Professor of Surgery.

(c) A course of surgically applied clinical anatomy.

This course will be conducted in the clinical theatre of the Toronto General Hospital. Regional anatomy will be studied on and illustrated by patients suffering from surgical conditions in different parts of the body. The anatomy of the different regions will be demonstrated by diagrams upon the blackboard, by frozen sections and by the use of the lantern.

(d) A series of demonstrations in surgical pathology.

These demonstrations will be conducted conjointly by the clinicians and the representatives of the Department of Pathology and will consist of demonstrations of the gross pathology, the histology, the bacteriology and the analyses of the blood, urine, etc., including not only microscopic findings, but the pathological chemistry necessary for complete clinical investigation. The demonstrations will illustrate the steps necessary in clinical study, and the appropriate treatment, based upon the gross pathology, together with the microscopic and chemical findings.

#### SIXTH YEAR SURGERY

The work of the Sixth Year in Surgery is entirely clinical, including one weekly mid-day clinical lecture.

##### *Clinical Work*

(a) Two clinics will be given in each week to the students of this year. The clinical classes in each Hospital will consist of the students assigned to the surgical services in the various Hospitals.

(b) The students in this year are assigned at the Secretary's Office to the surgical services at the Toronto General, St. Michael's, Western and Hospital for Sick Children, the number of men to each service depending on the number of students in the class. These men will be required to act as clinical clerks and to perform the following duties, the students alternating as arranged in the various divisions:

- 1 To act as assistants to the House Surgeon and to be prepared to carry out his instructions at all times.

- 2 To take the history of each patient allotted to him within twenty-four hours of his admission to the wards. To record the physical examination and to do and record the necessary laboratory work.

- 3 To attend all the operations performed on his service, and to be prepared to act as second assistant.

- 4 To do whatever dressings are detailed to him by the House Surgeon.

5 In the event of an autopsy on any patient who has been under his charge, to assist and make the necessary records

6 To work in the Out-patient Department and Emergency Department

7 To be required to attend the clinics given to the Fourth and Fifth Years on his service, and to be prepared to give to the clinician a detailed account of the cases being presented, and, if necessary, to act as demonstrator under the direction of the clinician. Further, to be required to provide and prepare the material for each clinic to the Fourth and Fifth Years

8 During his term of service he shall be prepared when directed to do so, to assist in giving and to give anaesthetics to the patients on his service under the supervision of the anaesthetist

(c) Once a week a conference will be held in the Pathological Department, when the Professor of Pathology and the members of the clinical teaching staff will meet to discuss the pathological material which has been sent from the clinic to the Pathological Department during the preceding week. These conferences between the Pathologist and the clinician will form a very important part of the tuition of the student in Surgery in the Sixth Year

Students in the Sixth Year will receive special instruction in physiotherapy. The value of massage, gymnastics, electricity, hydropathy, etc., in the treatment of surgical cases will be demonstrated

*Text-books*—Principles of Surgery, Rose and Carless, Haubold, Gask and Wilson, Da Costa, Minor Surgery, Foote, Process of Diagnosis, Ryerson, Surgical Diagnosis, Gould, de Quervain (translation), A Synopsis of Surgery, Ernest W. Hey Groves, Surgical Materials and Their Uses, MacLennan

*Reference Text-books*—Principles of Surgery, Choyce, Thomson and Miles, Oxford Loose Leaf Surgery, Surgical Treatment, Cheyne and Burghard, Binnie, Kocher, Alexis Thomson, Minor Surgery, Vaughan and Burnham, Orthopaedic Surgery, Lovett and Jones, Jones, Whitman, Fractures and Dislocations, Scudder, Surgery of the Chest, Paget, Lungs, Fowler and Godlee, Surgery of the Brain, Rawling, Operative Surgery, Horsley, Rowlands and Turner, After-Treatment of Surgical Patients, Bartlett, On the Spleen, Moynihan

## OBSTETRICS AND GYNAECOLOGY

*Professor of Obstetrics and Gynaecology* W B HENDRY*Associate Professor of Obstetrics* K C McILWRAITH*Associate Professor of Gynaecology* F W MILLER*Assistant Professors of Obstetrics and Gynaecology* F A CLELAND, R W WESLEY*Associates in Obstetrics and Gynaecology* W A SCOTT, J G GALLIE, N D FRAWLEY*Associate in Obstetrics* J A KINNEAR*Senior Demonstrators in Obstetrics and Gynaecology* W W LAILEY, W G COSBIE*Junior Demonstrators in Obstetrics and Gynaecology* H B VANWYCK, D M LOW*Resident Fellow in Obstetrics and Gynaecology* W A DAFOE*Secretarial Assistant* MISS M E KIDD

## FIFTH YEAR

*Lectures*—Obstetrics—A course of lectures illustrated by diagrams, lantern slides and models will be given. Stated generally, the course consists of two parts. The first part deals with the anatomy and physiology of the female organs of reproduction, the anatomy, physiology and management of normal pregnancy, labour and the puerperium, and the care of the infant. The second part is concerned with abnormal conditions arising during pregnancy, labour, and the puerperium, and with maladies of the infant.

Practical demonstrations on anatomy, the mechanism of labour, the use of obstetrical instruments, etc., will be given to small sections of students.

*Gynaecology*—A course of lectures illustrated by pathological specimens, diagrams and lantern slides will be given. The lesions of each organ are considered in detail and the methods of gynaecological diagnosis and treatment indicated.

*Clinical Work*—Obstetrics—The student attends clinics at the Toronto General Hospital. At these clinics practical instruction is given in the examination of patients, the diagnosis of pregnancy, the management of labour and the puerperium and the care of the infant.

*Gynaecology*—Clinical instruction is given at the Toronto General Hospital, in the method of case taking, the examination of patients, the use of instruments, and in the conduct of operations.

*Pathological Demonstrations*—The naked eye and microscopic pathology of the common obstetrical and gynaecological lesions will be demonstrated in the museum.

## SIXTH YEAR

*Obstetrics* —The student attends the Obstetrical Hospital for a period of five weeks during which time he is given an opportunity to see all the work of the hospital, and to assist in the management and treatment of cases. He may be required to attend patients in their own homes and to perform other duties in connection with the Out-Patient Service. Clinical lectures are given once a week on interesting and abnormal cases.

*Gynaecology* —Clinical instruction in the examination and diagnosis of gynaecological cases is given to small sections of students. Each student is required to act as clinical clerk to the cases assigned him, to be present at any operations required, and to follow the after-treatment. Operations will be performed on stated days and at these the members of the clinic may be present.

*Pathological Demonstrations* —A series of demonstrations in continuity with those held during the fourth year will be given in the museum.

*Text-books* —

*Obstetrics* —Eden, Whitridge Williams, Polak, De Lee

*Gynaecology* —Barbour & Watson, Graves, Crossen, Eden & Lockyer, Montgomery, Polak, Anspach

*Reference Text-books* —

*Obstetrics* —Bumm, Winckel, Munro Kerr, Operative Obstetrics, Davis, Operative Obstetrics, Lea, Puerperal Infection, Ballantyne, Antenatal Pathology

*Gynaecology* —Kelly, Operative Gynaecology, Berkeley & Bonney, Gynaecological Surgery, Winter & Ruge, Gynaecological Pathology, translated by Clark, Cullen, Cancer of the Uterus

## OPHTHALMOLOGY

*Professor* J M MACCALLUM*Assistant Professors* D N MACLENNAN, W H LOWRY*Sensor Demonstrators* M LYON, W W WRIGHT, F A AYLESWORTH,  
C E HILL*Secretarial Assistant* MISS M KINGSMILL

## FIFTH YEAR

Instruction will be given by quizzes, recitations or lectures. The class will be divided into small sections. In each section the applied anatomy of the eye, orbit and surrounding structures will be considered, followed by instruction in the use of the ophthalmoscope, retinoscope and other instruments of diagnosis. The methods of external examination of the eye, the use of the test type, test lenses and the principles of refraction will be thoroughly dealt with.

## SIXTH YEAR

Instruction will be wholly clinical and practical, and will include Ophthalmoscopy and its relations to general medicine, advanced refraction. Each student will be required to determine the refraction of patients in the Out-Patient Clinic and must, for this purpose, supply himself with an ophthalmoscope and a retinoscope. When possible the students will be shown the more usual operations on the eye.

There will be a short course of didactic lectures.

*Ophthalmology* —

*Text-books* —J Edward Jackson, May, Mayou, Nettleship, Parker, Parsons, Swanzy, Veasey, Hepbourne, Sym, Marshall

*Works of Reference* —de Schweinitz, Weeks, Fuchs, Posey & Wright, Theobald, Ball

## OTO-LARYNGOLOGY

*Professor* PERRY G GOLDSMITH*Associate Professor* GILBERT ROYCE*Associates* GEO M BIGGS, EDMUND BOYD*Senior Demonstrators* J C CALHOUN, A A CAMPBELL*Junior Demonstrators* JANE S MANSON, D E STAUNTON WISHART,  
H H BURNHAM*Secretarial Assistant* MISS O V ROSS

The course of instruction in oto-laryngology is carried on in the Toronto General Hospital, where the facilities placed at the disposal of the students are unusually complete. There is an indoor service of twenty beds, and in the outdoor, in addition to the large clinic, where the final year student receives instruction, there is a room set aside for the fifth year classes, with eight cubicles for examination purposes.



This course is carried on during both the fifth and sixth years of the curriculum

Clinics for the final year students are given one day a week at the Hospital for Sick Children. There is an in-door service which varies from ten to fifteen beds

#### FIFTH YEAR

In the fifth year the students will receive instruction in:

- (1) The normal anatomy of the ear, nose and throat
- (2) The methods of using the head mirror and the various instruments required in examining the ear, nose and throat
- (3) The ordinary tests for hearing
- (4) The recognition of the ear, nose and throat, in their normal conditions, as exemplified by clinical material

At the close of the session a clinical examination will be held

#### SIXTH YEAR

In the sixth year the students will be divided into small groups for the purpose of studying the commoner conditions met with in general practice, and as much clinical material as possible will be utilized for the purposes of personal observation

A series of lectures will be delivered upon the various diseases of the ear, nose and throat, ordinarily met with by the general practitioner

In the final, sixth year, two clinical examinations will be held. One at the completion of the trimester and the other at the end of the session

*Text-books* —Oto-Rhino-Laryngology, Georges Laurens, Ear, Nose and Throat, Dan MacKenzie, Diseases of Nose, Throat and Ear, A Logan Turner

*For Reference* —Diseases of Nose and Throat, Sir St. Clair Thomson, The Nose and Throat and their Treatment, Parker & Colledge, Diseases of Nose and Throat, Herbert Tilley, Diseases of the Ear, Albert Gray, Diseases of the Ear, Richard Lake

### PSYCHIATRY

*Professor of Psychiatry*

*Associate of Psychiatry* HARVEY CLARE

*Associate Professor in Psychology* J. W. BRIDGES

*Assistant Professor in Psychology* E. A. BOTT

*Demonstrators* ERIC K. CLARKE, F. S. VROOMAN, D. R. FLETCHER

#### FOURTH YEAR

*Lectures* —A series of didactic lectures is given, outlining some of the more important psychoses

A special course on psychiatry, in conjunction with psychology, is outlined among the options. This course is of great use to those who

wish to follow psychiatric work, as it gives sixty hours a year for five years and covers the whole range of modern psychiatry For particulars vide literature on optional course

# FIFTH YEAR

*Clinical Work*—A clinical course will be given The student will be afforded opportunity to obtain a practical knowledge of psychiatry, and to study the laboratory and clinical methods employed in the diagnosis and treatment of various forms of insanity

*Text-books*—Clinical Psychiatry, Diefendorf, Psychiatric Neurological Examination Methods, by Wimmer Housholt, Mental Diseases, by Walter Von Gulick, Dementia Praecox and Paraphrenia, by Emil Kraepelin, Outlines of Abnormal Psychology, Bridges, Mental Disorders, by Barnes

## PATHOLOGY AND BACTERIOLOGY

*Professor of Pathology and Bacteriology and Curator of the Museum and Laboratories* O KLOTZ

*Assistant Professor of Bacteriology* H B MAITLAND

*Lecturer in Pathology and Assistant Curator of the Museum* W L ROBINSON

*Lecturer in Pathology* Wm MAGNER

*Lecturer in Bacteriology* G H EAGLES

*Assistant in the Pathological Museum* R C MONTGOMREY

*Demonstrators in Pathology* G F LAUGHLIN, G R PHILP, A MACKAY,  
B M KOSTER, N H RUSSELL

*Demonstrators in Bacteriology* C W HARRIS, H E VALD, H L SKINNER,  
MISS C J FRASER

*Fellows in Pathology* G C CAMERON, J E BATES, F I LEWIS

*Artist* MISS VIOLET GILLET

*Secretarial Assistant* MISS G BOYD

The course of instruction in Bacteriology is given during the second half of the 3rd year This course is adapted to the needs of the student of Medicine, and attempts to give practical instruction concerning the important infections which are met with in general practice The bacteria are studied not only from the standpoint of their biological characters, but also in relation to the processes which are induced by them in human tissues

In the Fourth Year this course is followed by instruction in Pathology, the first half of the year being devoted to a study of the Principles of Pathology, while during the second half of this year the time is devoted to Special Pathology It is attempted to make the course as comprehensive as possible using every means to allow the student to understand the Pathological lesions of tissues and the consequences During the course in practical Pathological Histology the specimens from the Museum, illustrating the subject for study, are brought before the student with special demonstrations

During the Fifth Year the student will spend all available time at autopsies, and he is obliged to give attendance at a minimum of twelve cases.

During the Sixth Year weekly lectures are held, in which the Pathological changes observed in certain of the more common diseases are discussed with the student and illustrative Pathological case histories are analyzed to bring out the reasons, based on Pathological grounds, of certain Clinical manifestations.

### THIRD YEAR

During the second semester the student receives a course of lectures and practical laboratory exercises in Bacteriology. The lectures serve as a general guide to indicate the importance of certain bacteria and their actions in the tissues. The laboratory exercises are devised to permit the student to obtain a proper knowledge of the Pathogenic micro-organisms, and the means of isolation and identification of the most important bacteria. The practical course is introduced by a limited instruction on media-making and the technique of staining of bacteria and sterilization. Subsequently the student does not prepare his own media, but all of the time consuming technical processes are attended to by the laboratory staff. During the last few weeks in this course the student is given instruction on the principles of immunity, and upon the most important laboratory methods in Serology which are used for the diagnosis of disease. During the entire course, demonstrations are offered upon the intricate problems in Bacteriology for which time is not available to the student for personal investigation.

### FOURTH YEAR

The course in General Pathology occupies the first half of the Fourth Year, and consists of a series of lectures and a course of practical exercises. The lectures cover the subjects of General Principles, Anomalies, Degenerations, Necrosis, Pigmentations, Inflammation and Tumors. In the practical exercises the attempt is made to illustrate all points discussed during the lectures, by microscopic preparations and by examples of similar lesions obtained from our Museum. In all instances the macroscopic is taught with the microscopic study of the lesion. Great emphasis is laid upon the importance of an understanding of the inflammatory reaction, and the methods of healing which follow it. The Department possesses a series of microscopic preparations for the presentation of the practical work in General and Special Pathology. By means of these materials which have been prepared by the Assistants of the Department, the student is able to spend the allotted time to the study of the disease processes in the tissue, and he does not lose the time and effort in an attempt to carry out a technical procedure. The Department now possesses upwards of two hundred sets of these preparations, and it is hoped that these will soon be more than doubled.

During the second half of the Fourth Year, the student continues his studies in the Department of Pathology, receiving his instruction by

lectures and practical exercises in Special Pathology. During this course, the principles of Pathology which were studied in the preceding semester are applied to the individual organs of the body. In this manner the student becomes acquainted with the important lesions which make their appearance in the various tissues. These courses in Pathology are consistently illustrated by specimens from the Museum, coloured illustrations and by reference to texts and monographs. The student is encouraged to spend some time in accessory reading for which the library in this Department is available. Students desiring to acquire additional technique in preparing stained sections are encouraged to do so in their spare time.

#### FIFTH YEAR

During the Fifth Year the student will attend as many autopsies as his time will permit, at the Toronto General Hospital and St. Michael's Hospital. Special attention is being given to instruction in the autopsy room, wherein the case is not only demonstrated during its dissection, but is analyzed with the Clinical report which must accompany every case. A full discussion is entered into with the students and they are encouraged to analyze and criticize any of the problems under discussion. The student must be certified for at least twelve autopsies, as well as present a thesis upon one or more of the interesting cases which he has observed.

(The present Fifth Year (Class of 1926) will complete their studies in Pathology according to the curriculum of 1923-1924, wherein they will receive their instruction in Special Pathology by a course of lectures and a laboratory course covering this work. They will also attend autopsies as has been heretofore required.)

#### SIXTH YEAR

During the Sixth Year one conference a week will be held upon the principal diseases which interest the General Practitioner. These conferences will be of the nature of case analyses wherein the Pathological processes of the disease will be offered in explanation of the Clinical manifestations. The conferences will frequently be carried on in conjunction with the members of the Clinical Departments as well as with members of the other laboratory Departments.

#### ADVANCED WORK AND SPECIAL RESEARCH

Opportunity is afforded to those suitably trained to pursue advanced work and special research in experimental and practical Pathology and Bacteriology. For these purposes the laboratories are equipped with the necessary apparatus and material.

##### *Text-books*

*Bacteriology and Immunology* Hiss and Zinsser, Park and Williams, Karsner and Ecker

*Pathology* Delafield and Prudden, Adams and McCrae, MacCallum, Mallory, Pembrey and Richie

## PATHOLOGICAL CHEMISTRY

*Professor* V J HARDING*Lecturer* G HUNTER*Demonstrators* D H BODDINGTON, A P HART, F M R BULMER, I H  
ERS*Fellows* B E EAGLES, MISS K DREW*Secretarial Assistant* MISS M DUNCAN

## FOURTH YEAR

A systematic laboratory course in routine chemical examination of urine, blood, and gastric contents, supplemented by lectures and demonstrations

## FIFTH YEAR

*Lectures* —A course of lectures extending throughout the year is given on the metabolic aspect of various pathological conditions

*Clinical Laboratory* —A locker with apparatus and reagents is supplied to each student in this year by the Department of Pathological Chemistry, which he will utilize for the conduct of all chemical examinations necessary to the proper study of the cases under his charge. At least ten complete urine examinations shall be carried out, and the records filed both in the Department of Pathological Chemistry and the Departments of Medicine or Surgery. For the guidance of the student in such work, an instructor is in regular attendance at hours specified on the time-table.

*Option Course* —A laboratory course in more advanced methods of chemical examination of urine and blood. This course is particularly designed to meet the needs of those who may wish to pursue investigation work in various branches of internal medicine. The class is limited to twelve, and it is desirable that students taking this course shall have taken previous option work in biochemistry or physiology.

## SIXTH YEAR

*Clinical Laboratory* —A locker is provided each student as in the previous year for the conduct of all chemical examinations necessary for a study of the cases under his charge.

At the end of each year, each student shall make good any loss or damage to apparatus under his care. Otherwise he shall not be permitted to sit for the University examinations.

*Text-books* —Wells, Chemical Pathology, Simon, Clinical Diagnosis

*Reference Books* —Lusk, Science of Nutrition, Myers, Practical Chemical Analysis of Blood, Underhill, Manual of Selected Biochemical Methods

## HYGIENE AND PREVENTIVE MEDICINE

*Professor* J G FITZGERALD

*Associate Professor* R D DEPRIES

*Assistant Professor* D T FRASER

*Director University Health Service and Lecturer in Hygiene* G D PORTER

*Demonstrator in Industrial Hygiene* J G CUNNINGHAM

*Demonstrator in Sanitary Chemistry* P J MOLONEY

*Demonstrators in Hygiene* A GRANT FLEMING, R R MCCLENAHAN

*Class Assistant* MISS M MAITLAND

*Secretarial Assistant* MISS ISABEL SAUNDERS

The Department of Hygiene and Preventive Medicine provides a course of lectures and demonstrations in Preventive Medicine, Hygiene and Sanitation, for students in the fifth year in the Faculty of Medicine

Students in the Faculty of Medicine are required between the end of the Fifth and the beginning of the Sixth Year (either in June or September) to take a practical course of one month's duration in Preventive Medicine and Public Health in a Department of Public Health in Ontario, approved by the University

Lecture courses are provided also in Hygiene and Sanitation for students in the Faculties of Applied Science, Household Science and the Department of Social Service

Laboratory and didactic courses of instruction are given to students in the Faculty of Applied Science who have elected the Sanitary and Highways option and to students in the Department of Public Health Nursing. In addition a series of lectures on Hygiene and Sanitation is delivered during the Winter Term to the Pupil Nurses of the Toronto Chapter of the Canadian Association of Nursing Education

A course of instruction for graduates in Medicine leading to the Diploma in Public Health was instituted in 1904. Details of the curriculum leading to the Diploma in Public Health will be found on page 37

## INDUSTRIAL HYGIENE

A course of instruction in Industrial Hygiene for graduates in Medicine is available for those wishing to undertake work in this branch of Preventive Medicine

Further details of the course may be obtained on application to the Head of the Department

Facilities for Research in Preventive Medicine, Hygiene and Public Health (Immunity, Serology and Bacteriology) are provided in the Research Division of the Connaught Laboratories, for graduates in Medicine and other suitably qualified candidates desirous of prosecuting such studies

*Text-books* —Fitzgerald, Practice of Preventive Medicine, Rosenau, Preventive Medicine and Hygiene, Park, Public Health and Hygiene, Overton and Denno, The Health Officer, Prescott & Winslow, Elements of Water Bacteriology, American Public Health Association Standard Methods of Water Analysis

*Reference Books* —Kolmer, Infection, Immunity and Specific Therapy, Ledingham & Arkwright, The Carrier Problem of Infectious Diseases, Whipple, Microscopy of Drinking Water, Chandler, Animal Parasites and Human Disease, Mock, Industrial Medicine and Surgery, Linszen, Infection and Resistance (3rd edition)

## MEDICAL JURISPRUDENCE

Professor G SILVERTHORN

FIFTH YEAR

*Lectures* —About eighteen lectures and class-room demonstrations will be given. These will be illustrated as required by lantern slides and by specimens from the Pathological Museum or from private collections.

The lecture course will embrace *inter alia* a discussion of —Legal Criminal procedures and the relation of Medical men thereto. Medical evidence, documentary and oral, ordinary and expert. Personal identity of the living and of the dead. Thanatology. The reality of death, *post mortem* changes, autopsies and reports. Causes producing deaths by violence such as the various forms of asphyxia, heat, cold, electricity, etc. Wounds in their medico-legal relations. Blood stains and the examination of blood. Medico-legal aspects of the sexual functions, impotency, sterility and legitimacy. Pregnancy, abortion and infanticide. Rape and allied offences against chastity. Civil and criminal malpractice.

*Text-books* —Glaister, Reese, Emerson, Draper, Buchanan's Text-book of Forensic Medicine and Toxicology.

*Reference Text-books* —Taylor's Principles, Whitthaus and Becker, Peterson and Haines, Dixon Mann, Cattell's *Post Mortem Pathology*, Greene's Life Insurance, Atkinson's Law in Medical Practice, Cathell's The Physician Himself, Brother's Medical Jurisprudence, Wadsworth's Post Mortem Examinations.

## RADIOLOGY

Associate G E RICHARDS

Instructors W H DICKSON, A H ROLPH

FIFTH YEAR

A series of ten lectures will be given dealing with the principles underlying the use of X-rays and radium as therapeutic agents, and the practical application of these in the treatment of disease.

## SIXTH YEAR

Twenty lectures and demonstrations are given. In this course the use of X-ray methods in the diagnosis of diseases of the Gastro-intestinal tract, the chest, and the skeletal system will be fully covered, and will be illustrated by plates and lantern slides. It is also proposed to make demonstrations to small groups in the use of the fluoroscope.

*Text-books* —Grover, Electro-Therapeutics, Clark, Radium, X-Ray and Electro-Therapy, Knox, System of Radiography and Radiotherapy, 2 vols., Carman, Roentgen Diagnosis of Diseases of Gastro-Intestinal Tract, Simpson, Radium, Baetjer & Waters, Diseases of Bones and Joints, George & Leonard, The Pathological Gall Bladder, Ruggles & Holmes, X-ray Interpretation, The U S Army Manual of Radiology.

## LECTURES IN DENTISTRY

The Faculty have arranged for a course of lectures to be delivered during the Session, on the application of Dentistry to Medicine. The instruction will be given by a man properly qualified for the purpose and will be delivered to the students of the final year. The course will be obligatory.

## BUILDINGS

The University of Toronto provides the most ample facilities for the practical, didactic and clinical instruction of medical students. The following buildings are utilized by the student in his course in Medicine: Biological, Chemical and Physics Buildings, Medical Building, Pathological Building, Anatomical Building, University Library, Toronto General, St. Michael's and Western Hospitals and Hospital for Sick Children.

## THE MEDICAL BUILDING

The Medical Building is situated between the University Library and the Biological Building.

It is three storeys in height in front, with an additional storey and sub-basement in the wings, which extend eastward. Two large lecture rooms are provided which flank the main building, the larger has accommodation for about three hundred and fifty students, the smaller for about two hundred students.

The three main floors of the building are arranged upon what has been called the unit-system, a unit-room being thirty feet long by twenty-three feet deep, lighted on its long face by large windows. These rooms may be united so as to form large laboratories or may be cut in two where it is necessary to have smaller rooms. On the ground floor in the main portion are situated in front the Secretary's office, a large faculty room, a lavatory, and a library.



The building is utilized for conducting the work in the Departments of Physiology, Biochemistry, Pharmacology, Hygiene and Preventive Medicine, including the University branch of the Connaught Laboratories and Zymology. In it are also the administrative offices of the Faculty of Medicine.

### THE LIBRARY

The University Library is contained in a building of its own, situated on the east side of the campus that lies to the south of the Main Building. All students who have paid a library fee to the Bursar of the University are entitled to the privileges of the Library. Besides Reading Rooms the building contains Departmental Studies, which may be used as study rooms by honour students in the various branches in which the Professors hold seminary courses, and private studies, intended for members of the Faculty or advanced students engaged in research work. The Library is opened at 8.45 every morning and remains open until 10 in the evening during the academic term. Books in ordinary use may not be taken out of the building during the daytime, but are lent for the night shortly before the hour of 5 p.m., to be returned the following morning before 10 o'clock. Books not in general demand may, on special application, be borrowed for a longer period. Failure to return a borrowed book at the proper time and other breaches of the regulations are punishable by fine or suspension from the privileges of the Library.

### THE PATHOLOGICAL BUILDING

This building is situated on University Avenue and connected by a covered corridor with the Out-patient Department and so with the rest of the Toronto General Hospital. On the basement, or ground floor, are the Pathological Museum, lecture room and autopsy room as well as students' coat room and lavatories. On the first floor are rooms for the routine Hospital pathology and class rooms for pathological histology and bacteriology. On the second floor there are laboratories, and room for the Departmental Library and special classes in Pathology, in addition to a set of laboratories for pathological chemistry for the use of students in the Fourth and Fifth Years. On the third floor are the class rooms for systematic instruction in pathological chemistry and the laboratories for the staff in this Department, including balance, polarimeter, combustion and experimental rooms. Above this in the roof is the accommodation for animals.

Connected with the autopsy room is a cold storage plant with accommodation for twelve cadavers, and by means of a brine circulation, refrigerators in the staff laboratories on the first, second and third floors are kept cold. For many of the laboratories too there is a compressed air service.

The lecture room has seats for about 150 students and is connected with a room for preparing experimental demonstrations.

The museum is planned especially for the instruction of students a small catalogue room and a preparation room are connected with it

The class rooms are divided into small units and are exceptionally well lighted

Lockers are provided for more than 300 students in the laboratories for pathological chemistry so that every student working in the Hospital may have his own place and apparatus

The building is of fire-proof construction throughout

## THE ANATOMICAL BUILDING

The new Anatomical Building is situated to the east of the Medical Building to which it is parallel, and with the south wing of which it is connected

It consists of four storeys and a basement except at the north end where there is a large lecture-room, two storeys in height and capable of accommodating 250 students. Beneath the lecture room are several well-lighted and commodious rooms which are to be equipped as a laboratory for experimental surgery. The remainder of the basement gives ample space for the preservation and storage of material

The first floor is devoted to cloak-rooms for those occupying the lecture-room, a chart room and a photographic room, together with two demonstration or study rooms. Accommodation is also reserved for a Department of Anthropology which, it is hoped, may shortly be established

On the second floor is a commodious Museum occupying the south end of the building, with a preparation room in connection. Two laboratories planned to accommodate classes in Histology, Embryology and Neurology are also provided upon this floor, together with a second lecture room with seating accommodation for approximately 100 students, and two demonstration rooms

The third floor provides for a departmental library, private rooms for members of the staff and a dissecting room, while the fourth floor is devoted mainly to a series of dissecting rooms, well lighted by sky-lights. Certain of these rooms may be used as required for special classes and provision is also made for an osteology room and a demonstrators' room. Ample locker and lavatory accommodations are provided

## ROYAL ONTARIO MUSEUM

### ARCHAEOLOGY, GEOLOGY, MINERALOGY, PALAEOONTOLOGY, ZOOLOGY

Students of the University in all departments are recommended to avail themselves of the privileges of the Museum, which, although under separate control, is intimately connected with the work of the University

The Museum is open on all week days from 10 a m to 5 p m, also on Thursday Evenings from 7 to 9, Sundays 2 p m to 5 p m. The admission

is free to the public on Tuesday, Thursday, Saturday and Sunday. On other days an admission fee of fifteen cents is charged.

By a resolution of the Board of Trustees all regular students of the University may be admitted free on all days of the week by presenting their card of registration.

### TORONTO GENERAL HOSPITAL

The Hospital has more than seven hundred beds, and during the last year admitted to its wards 10,918 patients.

The Out-door Department, which has been elaborately equipped with especial attention to the requirements of teaching as well as treatment, is designed to receive and care for several hundred patients each day, if necessity demands. Last year 55,193 out-patients were treated.

The Hospital is for the treatment of acute medical and surgical diseases, and the members of the staff are, in nearly every instance, drawn from the University Medical Faculty.

The Hospital Block contains ten acres, and the group of buildings includes almost everything necessary to enable a student to acquire a practical knowledge of the profession of Medicine.

On the south-west corner is situated the large Pathological Building, which is also an integral part of the Hospital. In it are found the Pathological, Clinical and Chemico-Pathological Laboratories, as well as the Autopsy Room, Museums, etc. The Pathological Building is regarded as one of the most complete in America. There were 252 autopsies during the year.

North of the Pathological Unit is found the Out-Patients' Department already referred to, then follows the Emergency Hospital, fully equipped with every modern device necessary for the immediate care and treatment of emergency patients. In this building arrangements have been made for the teaching and demonstration of practical methods in minor surgery.

The Medical Wing, the Administrative Building and Surgical Wing face College Street. These groups embody every modern requirement in hospital equipment, and special facilities for the student are provided—such as lecture room, cloak room, etc.

Twelve Operating Rooms are to be found in the different Surgical sections. South of the Surgical Wing is located the Obstetrical Hospital with eighty beds. The number of births in this Department last year was 1,292.

The X-Ray Department is one of the most complete on the continent, and averages more than one hundred patients a day sent in for examination. Complete courses are given to the students, so that they can qualify themselves in X-ray work. A well equipped Hydro-Therapeutic Department exists in connection with the X-Ray Department.

### HOSPITAL FOR SICK CHILDREN

This large Hospital, with 262 beds, is entirely devoted to diseases in children, there having been 6,346 cases treated during the last year. In the Out-patient Department, 58,660 patients were attended. The old building has been remodelled and a large new wing has been built on the west side of the present building. These alterations and additions include new operating theatres, out-patient department, pathological laboratories and wards for infectious cases.

### ST MICHAEL'S HOSPITAL

This institution is conducted as a General Hospital, where medical, surgical and obstetrical cases are admitted. The number of patients admitted last year was 5,055 while 49,925 cases were treated in the out-patient department. There were 454 births in the Obstetrical Department. The accommodation has been enlarged by the addition of a new wing, so that there are now 400 beds. An operating theatre has been provided constructed with all the necessary modern equipment for the practise of antiseptic surgery.

### TORONTO WESTERN HOSPITAL

This is a modern institution affording excellent opportunities for clinical study. During the past year 3,825 patients were admitted. There is an out-door service where dental, tubercular, surgical, medical, gynaecological and special clinics are held, the number of patients treated in the Out-patient Department last year was 10,395.

Two large operating theatres are provided and the operations performed last year numbered 2,190. There is also an Obstetrical Department.

There are four public wards specially adapted for clinical teaching each containing thirty beds, two of these wards are devoted to medical and two to surgical cases.

### INTERNES IN THE HOSPITALS

A number of resident assistants are appointed annually from the graduates in medicine of Universities, and hold their positions for one or two years.

They will have full opportunities for acquiring experience in the general and special wards of the Hospitals, and during the session they will have charge under the physicians and surgeons in the wards.

## CONNAUGHT LABORATORIES

*Director* J G FITZGERALD*Associate Director* R D DEFRIES*Research Member* A H CAULFIELD*Research Associates* D T FRASER, P J MOLONEY, C H BRES*Research Assistants* BEECHER WELD, M MAITLAND, L O HANNA*Bacteriologists* A BOLTON, H WIGHAM*Chemists* D A SCOTT, KENNETH MACALPINE

The Connaught Laboratories, consisting of Research, Antitoxin and Insulin Divisions, have a scope somewhat similar to that of the Lister Institute, London, The Pasteur Institute, Paris, and the Rockefeller Institute, New York, in the field of Preventive Medicine, Bacteriology, Serology, and Immunity. Primarily established for research in Preventive Medicine, these Laboratories are also engaged in the production and distribution of Public Health Biological Products and Insulin. The distribution of diphtheria antitoxin was commenced in May, 1914, and since that date the production of other sera and vaccines has been undertaken and the distribution extended throughout Canada and Newfoundland, the British West Indies, and to New Zealand. The preparation of Insulin (pancreatic extract) was commenced in January, 1922.

The products distributed include diphtheria antitoxin, tetanus antitoxin, anti-meningitis serum, small-pox vaccine, anti-pneumococcus serum, typhoid vaccine and rabies vaccine and insulin.

Since February 1st, 1916, the Provincial Board of Health of Ontario has distributed, free of charge in Ontario, all of the above named products. The Secretaries of the Local Boards of Health need only make application to the Chief Officer of Health, Parliament Buildings, Toronto, and supplies are at once forwarded. Physicians and Hospitals are supplied by the Secretary of their Local Boards of Health.

Similarly in September, 1917, the Bureau of Public Health, Saskatchewan, began free distribution of diphtheria antitoxin in that Province (The antitoxin so supplied is prepared by these Laboratories.)

The Department of Militia and Defence was supplied with tetanus antitoxin and other biological products used by the Canadian Expeditionary Force Overseas and in training in Canada.

In October, 1917, a farm of over fifty acres and completely equipped laboratories and stables were presented to the University by Colonel Albert Gooderham. These Laboratories were given to provide facilities for research in Preventive Medicine, and also to provide for the production of serums and vaccines. In connection with these Laboratories there has been established the Connaught Laboratories Research Fund, the interest

THE BANTING AND BEST CHAIR OF MEDICAL RESEARCH

*Professor* F G BANTING

*Research Associate* C H BEST

*Research Fellow* D S CORNELL

*Research Assistants* MISS SADIE GEARNS, MISS JESSIE RIDOUT

The Banting and Best Chair of Medical Research was established by the Board of Governors of the University as the result of a special grant of the Legislature of the Province of Ontario in 1923

The terms of the Act establishing the Banting and Best Research Fund provide for an annual grant to the University of Toronto for the promotion of Medical Research in accordance with the following preamble which appears in the Act —

"Whereas F G Banting, M D , and C H Best, B A , in the prosecution of medical research have made an important discovery by means of which it is now possible to ameliorate the condition of persons suffering from the disease known as diabetes, and it is believed that prosecuting the research will result in perfecting a remedy for the cure of that disease, and it is desirable and expedient in the public interest to provide by legislative grant the continuation and prosecution of kindred researches "

Research under the provisions of this Chair began in July, 1923, and researches on several medical problems are being carried on in laboratories in the Medical building of the University Work is also being carried out in the Insulin Division of the Connaught Laboratories, with funds provided from this grant

## GENERAL INFORMATION FOR STUDENTS

### PHYSICAL TRAINING

By order of the Board of Governors each male student proceeding to a degree must take Physical Training in the First and Second Years of his attendance. He must first undergo a medical examination by the Director of the University Health Service to determine the character of his training.

Each woman student proceeding to a Bachelor's Degree in the Faculty of Medicine shall be required, during the first year of her attendance, to take Physical Training, following an examination by the Medical Advisor for Women.

A student who has failed to complete satisfactorily the course in Physical Training prescribed for the First Year will not be permitted to register in the Third Year, and the student who has failed to complete satisfactorily the course in Physical Training prescribed for the Second Year, will not be permitted to register in the Fourth Year.

### DISCIPLINE

The Council of University College and the governing bodies of the federated universities and colleges, respectively, have disciplinary jurisdiction over and entire responsibility for the conduct of their students in respect of all matters arising or occurring in or upon their respective college buildings and grounds, including residences.

The councils of such of the faculties as have assigned for their separate use any building or buildings and grounds, including residences, have disciplinary jurisdiction over and entire responsibility for the conduct of all students in their respective faculties in respect of all matters arising or occurring in or upon such building or buildings and grounds.

In all such cases, and, save as aforesaid, as respects all students to whatsoever college or faculty they may belong, disciplinary jurisdiction is vested in the Caput, but the Caput may delegate its authority in any particular case or by any general regulation to the council or other governing body of the university or college or faculty to which the student belongs.

If there be any question as to the proper body to exercise jurisdiction in any matter of discipline which may arise, the same shall be determined by the Caput, whose decision shall be final.

Disciplinary jurisdiction includes the power to impose fines.

## REGULATIONS RELATING TO STUDENTS IN ATTENDANCE

No student will be enrolled in any year, or be allowed to continue in attendance, whose presence is deemed by the Council of the Faculty to be prejudicial to the interests of the University

Students proceeding regularly to the degree are required to attend the courses of instruction and the examinations in all subjects prescribed for students of their respective standing, and no student will be permitted to remain in the University who persistently neglects academic work

Unless special permission is granted by the Council, a student who, at the close of two sessions in the University, has failed to secure standing in his year, will not be permitted registration in the Faculty of Medicine

The Students Administrative Council has been entrusted by the Caput with supervision of the conduct of the students, and has power, subject to the approval of the Caput, to deal with violations of the regulations governing conduct

Any student who may be convicted of having taken part in a parade or procession through the city which has not been authorized by the police authorities after application by the Executive of the Students Administrative Council, will be severely disciplined

All interference on the part of any student with the personal liberty of another by arresting him, or summoning him to appear before any unauthorized tribunal of students, or otherwise subjecting him to any indignity or personal violence, is forbidden by the Caput

A student who is under suspension, or who has been expelled from a College or from the University, will not be admitted to the University buildings or grounds

The constitution of every University society or association of students in the Faculty of Medicine and all amendments to any such constitution must be submitted for approval to the Council of the Faculty. All programmes of such societies or associations must, before publication, receive the sanction of the Council of the Faculty through the President. Permission to invite any person not a member of the faculty of the University to preside at or address a meeting of any society or association must be similarly obtained

The name of the University is not to be used in connection with a publication of any kind without the permission of the Caput

## THE UNIVERSITY OF TORONTO MEDICAL SOCIETY

This Society consists of the graduates and undergraduates enrolled in the Faculty of Medicine of the University of Toronto. It is under the patronage of the members of the Faculty of Medicine and its object is to deal with all matters pertaining to the general interest and welfare of the students, especially —



(a) To encourage interest in general medical science and literature, and in pursuit of medical studies

(b) To provide telephones for the convenience of students

(c) To be a means of communication between the Student body and the Faculty or others, when such communication is desirable

(d) To provide a series of entertainments for students at intervals during the Session

(e) To assist the student who becomes ill during the Academic year

(f) Each student will be required to pay the annual fee of two dollars to the Bursar, to be divided as follows —

Medical Society Fee	\$1 00
Athletic Fee	1 00

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FACULTY OF APPLIED SCIENCE AND  
ENGINEERING

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## FACULTY OF APPLIED SCIENCE AND ENGINEERING

### HISTORICAL SKETCH

The Legislative Assembly of the Province of Ontario during the Session of 1877 gave its sanction to the establishment of a School of Practical Science on the basis proposed in the memorandum of the Minister of Education confirmed by the Lieutenant-Governor in Council on the 3rd day of February, 1877

By the scheme thus approved the Government effected an arrangement with the Council of University College whereby the students of the School of Practical Science enjoyed full advantage of the instruction given by its professors and lecturers in all the departments of science which were embraced in the work of the School

This arrangement was brought to an end in 1889 by the transfer of the department of science, above referred to, from University College to the University of Toronto under the operation of the University Federation Act

In order that the students of the School might continue to enjoy the advantage of the instruction of the above departments, the Senate of the University of Toronto passed a Statute in October, 1889, affiliating the School to the University, which Statute was confirmed by the Lieutenant-Governor on the 30th day of October, 1889

By an Order-in-Council, approved by the Lieutenant-Governor on the 6th day of November, 1889, a Principal was appointed, and the management of the School was entrusted to a council composed of the Principal as chairman, and the Professors, Lecturers and Demonstrators appointed on the Teaching Faculty of the School. By the terms of this order the management and discipline of the School was vested in the Council

By the University Act of 1906 the School of Practical Science became the Faculty of Applied Science and Engineering of the University of Toronto, although on December 14th, 1900, the Senate by Statute, subsequently approved by the Lieutenant-Governor in Council, established a Faculty of Applied Science and Engineering but without assuming any liability for its support or maintenance. Under this Statute the teaching Staff and Examiners of the School of Practical Science became the teaching Staff and Examiners of the Faculty, although the University retained the right to appoint the Examiners for the Bachelor of Applied Science and professional degrees

On April 8th, 1892, the Senate of the University established the Degree of B A Sc, which was open to those who held the Diploma of the School and were prepared to devote a fourth year to advanced work. In the Session 1909-1910 a new Course extending over four years and leading to the Degree of B A Sc came into operation, taking the place of the long established Diploma Course of three years, which came to an end in the Session 1910-1911

## MATRICULATION

A candidate for admission to the First Year in the Faculty of Applied Science and Engineering must produce satisfactory certificates of good character and of having completed the seventeenth year of his age on or before the first of October of the year in which he proposes to register

He must also present certificates giving him credit in the following subjects of Pass and Honour Matriculation

## PASS MATRICULATION

ENGLISH (Literature and Composition)

HISTORY (British and Ancient)

MATHEMATICS (Algebra and Geometry)

Any three of

LATIN (Authors and Composition)

GREEK (Authors and Composition)

FRENCH (Authors and Composition)

GERMAN (Authors and Composition)

{ SPANISH (Authors and Composition) *or*

{ ITALIAN (Authors and Composition)

{ EXPERIMENTAL SCIENCE (Physics and Chemistry) *or*

{ AGRICULTURE (Parts I and II)

## HONOUR MATRICULATION

(At least 50%)

ENGLISH (Literature and Composition)

MATHEMATICS (Algebra, Geometry and Trigonometry)

One of

LATIN (Authors and Composition)

GREEK (Authors and Composition)

FRENCH (Authors and Composition)

GERMAN (Authors and Composition)

SPANISH (Authors and Composition)

ITALIAN (Authors and Composition)

In selecting the options it is recommended that students take French, German and Experimental Science. In the Department of Architecture, French is required, in the Departments of Chemical Engineering and Mechanical Engineering it is desirable that students take German. For students intending to take Metallurgical Engineering, Spanish and Experimental Science are recommended.

The regulations respecting Matriculation, together with a schedule of examinations which may be accepted as equivalent, may be found in the Curriculum for Matriculation on application to the Registrar of the University

## ADMISSION

Applications for admission must be made on blank forms supplied by the Registrar, and should be forwarded as early as possible to the Registrar of the University, together with all Pass and Honour Matriculation or equivalent certificates

Applications based upon certificates other than those mentioned will be considered as occasion may require. Such certificates must be accompanied by an official statement of the marks in the various subjects upon which the certificate was granted

ADMISSION *AD EUNDEM STATUM*

An undergraduate of another University may be admitted *ad eundem statum* on such conditions as the Senate on the recommendation of the Council of the Faculty may prescribe

An applicant for admission *ad eundem statum* must submit with his petition (1) a calendar of his University giving a full statement of the courses of instruction, (2) an official certificate of character and academic standing

## REGISTRATION

Students in any year will be required to register in person on the date specified in the Calendar for the registration of students in that year. Those who present themselves on subsequent days must petition the Council to be allowed to register. Council reserves the right to reject applications of, or impose penalties upon, those who fail to report on the dates specified

## ENQUIRIES

Enquiries with reference to requirements of admission to the Faculty of Applied Science and Engineering are to be addressed to the Registrar of the University

Communications relating to curricula, instruction, examinations and standing therein, in the Faculty of Applied Science and Engineering are to be addressed to the Secretary of the Faculty

## DEGREES

*Degree of Bachelor of Applied Science (B A Sc )**Degree of Bachelor of Architecture (B Arch )*

There are six graduating Departments leading to the Degree of Bachelor of Applied Science (B A Sc ) and one graduating Department leading to the Degree of Bachelor of Architecture (B Arch ) , viz ,

- 1 Civil Engineering
- 2 Mining Engineering
- 3 Mechanical Engineering
- 4 Architecture
- 5 (Discontinued )
- 6 Chemical Engineering
- 7 Electrical Engineering
- 8 Metallurgical Engineering

Descriptions of the courses in these Graduating Departments are given on pages 36, 37, 42, 45, 49, 52, 55, 58

In the fourth year, optional courses are arranged in certain departments. Students are required to submit their selection to the Secretary in writing, not later than September 15th. The proposed selection must be approved by Council before adoption.

*Degree of Master of Applied Science (M A Sc )**Degree of Master of Architecture (M Arch )*

Graduates holding the Degree of B A Sc of this University or those holding the degree of another University recognized as equivalent, may take post-graduate work proceeding to the Degree of Master of Applied Science (M A Sc ) (For requirements, see page 103 )

Graduates holding the Degree of B Arch or B A Sc in Architecture of this University, or those holding the Degree of another University recognized as equivalent, may take post-graduate work proceeding to the Degree of Master of Architecture (M Arch ) (For requirements, see p 103 )

*Professional Degrees*

Graduates in Applied Science and Engineering, and graduates of the School of Practical Science, may, after three years spent in professional work, present themselves for the degrees of Civil Engineer (C E ) , Mining Engineer (M E ) , Mechanical Engineer (M E ) , Electrical Engineer (E E ) , Chemical Engineer (Chem E ) , Metallurgical Engineer (Met E ) , as the case may be, subject to the rules and regulations established by the University (See page 104 )

## FEES

All fees are payable at the Bursar's office between the hours 10 a m and 1 p m of each week day except Saturday (or may be remitted by mail)

The annual fees, including tuition, library, laboratory supplies and one annual examination for each year, shall be as follows

If paid in full on or before November 5th \$150 00

If paid by instalments—

First instalment, if paid on or before November 5th 75 00

Second instalment, if paid on or before February 5th 78 00

Repeating the year—If paid in full on or before November 5th 75 00

The above fees are payable in advance After November 5th a penalty of \$1 00 per month will be imposed until the whole amount is paid In the case of payment by instalments the same rule as to penalty will apply

Students must have paid the fees due in the first term before proceeding to the work of the second term

## GENERAL FEES

Matriculation, or registration of Matriculation	\$ 5 00
Supplemental examination	10 00
Admission <i>ad eundem statum</i>	10 00
Degree of B A Sc	10 00
Degree of B Arch	10 00
Degree of M A Sc	25 00
Degree of M Arch	25 00
Physical Training (see page 21)	5 00
Supplemental Physical Training (see page 21)	10 00
Hart House (see page 21)	8 00
Students' Administrative Council (see page 21)	3 00

## DUES AND DEPOSITS

(Payable to the Secretary of the Faculty at the time of registration)

Engineering Society membership	\$2 00
Athletic Association membership	1 00
Annual deposit, Departments 1, 3, 4, 7	3 00
Departments 2, 6, 8	8 00

Charges for waste, neglect and breakage are to be met out of the deposit fee, the balance of which will be refunded to the student at the end of the session on application to the Secretary.

If the foregoing deposits do not cover the cost of breakage due to carelessness or neglect, the balance shall be paid by the student to the Secretary and in default of such payment the results of his examination will be withheld

## HART HOUSE FEE

Every male student in attendance, proceeding to a Bachelor's Degree in the Faculty of Applied Science and Engineering, is required to pay to the Bursar before December 1st the annual fee of eight dollars for the maintenance of Hart House. If this fee is not paid by the above date a penalty of two dollars will be imposed, making the total fee ten dollars.

## STUDENTS' ADMINISTRATIVE COUNCIL FEE

Every student in attendance, proceeding to a Bachelor's Degree in the Faculty of Applied Science and Engineering, is required to pay to the Bursar at the time of the entry of his name with the Secretary the annual fee of three dollars for the support of the Students' Administrative Council.

## PHYSICAL TRAINING FEE

Every male student in attendance proceeding to a Bachelor's Degree in the Faculty of Applied Science and Engineering is required to pay to the Bursar the annual Physical Training fee of \$5.00 at the opening of each session in which Physical Training is compulsory for that student.

A student who has failed to complete satisfactorily the course in Physical Training prescribed for the First Year will not be permitted to register in the Third Year, and the student who has failed to complete satisfactorily the course in Physical Training prescribed for the Second Year will not be permitted to register in the Fourth Year.

Every student who has neglected to complete satisfactorily the course in Physical Training of the First or Second Year, and who must take this work during the Second or Third Year respectively of his course, will be required to pay to the Bursar at the opening of the session a Supplemental Fee of \$10.00, in addition to the prescribed Physical Training fee.

## SCHOLARSHIPS

## BOILER INSPECTION AND INSURANCE COMPANY SCHOLARSHIP

The Boiler Inspection and Insurance Company of Canada offers a Scholarship in the Department of Mechanical Engineering of the value of \$150.00 to the student who obtains highest Honour Standing in the regular examinations of the third year.

The successful candidate will be expected to proceed to his fourth year during the session next following the date of the award.

The amount of the award will be credited by the Bursar to the fees of the fourth year of the successful candidate.

## ONTARIO ASSOCIATION OF ARCHITECTS' ARCHITECTURAL SCHOLARSHIP

The Ontario Association of Architects offers a scholarship in the Department of Architecture of the value of \$100 to the student who has obtained the highest standard of general proficiency during the first year. This scholarship will be awarded annually in May, 1922 to 1926 inclusive.



## TORONTO ARCHITECTURAL GUILD MEDAL

The Toronto Architectural Guild was the organization of local architects from which sprung the Ontario Association of Architects. When the new and wider association became firmly established, the Guild disbanded and handed over to a trustee board certain funds for the establishment of a Medal to be awarded in the Department of Architecture of the University of Toronto.

The Trustee Board, now that the fund has accumulated considerably, announces its intention of awarding this medal annually to a senior student showing outstanding ability in Architectural Design.

## HARVEY AGGETT MEMORIAL SCHOLARSHIP

This scholarship was donated by Mr J T Aggett, of Toronto, as a perpetual memorial to his son, the late Lieutenant Harvey Aggett, who enlisted in March, 1915, during his second year in this Faculty, and was killed in action at Passchendaele on 6th November, 1917.

This annual scholarship of the value of seventy-five dollars is to be awarded to a student of the second year in this Faculty who, obtaining honours and being one of the first three in his year by his standing at the annual examinations relative to the pass requirements in his department, has been adjudged highest of the three in general student activities and service in the University during his period of attendance.

## THE 1851 EXHIBITION SCIENCE RESEARCH SCHOLARSHIP

The Royal Commissioners for the Exhibition of 1851, if satisfied with the qualifications of the candidates put forward, will each year allot three Science Research Scholarships to Canada. The University of Toronto has been invited to recommend annually one or more candidates in order of merit for these Scholarships.

1 Each candidate recommended must be a British subject and under twenty-six years of age, except under very special circumstances, he must be a bona fide student of Science of not less than three years' standing, he must also have completed a full University course and have spent at least one full academic year at this University prior to the date of recommendation.

2 Applications for these Scholarships must be made to the Registrar of the University not later than March 15th, the latest date on which the recommendation of the University of Toronto for Scholarships offered in 1925 can be received at the Office of the Commissioners is May 1st, 1925.

3 Each Scholarship is of the value of £250 per annum, payable quarterly in advance, on presenting to the Commissioners a satisfactory final report.

at the expiration of his Scholarship the scholar will receive a grant of £25. A scholar who is not in a position to travel at his own expense, or for whom it is not possible to obtain free passage, may make application to the Commissioners for aid towards the payment of his fare from his University to his place of study. A Scholar will receive an additional annual allowance, not exceeding £30, towards the cost of University fees, if, in the opinion of the Commissioners, he is in need of such allowance.

4 The Scholarship will be tenable ordinarily for two years, and in cases of exceptional merit for three years. The continuation of a Scholarship for a second year will depend upon the satisfactory nature of the scholar's first year's work. Renewal for a third year will be granted only where it appears that the renewal is likely to result in work of scientific importance.

5 The scholar will be required to devote himself to research in some branch of pure science, or its practical applications.

6 A scholarship may be held, with the approval of the Commissioners, at any Institution at home or abroad, but a scholar will not be permitted, except under very special circumstances, to conduct his investigations in the country in which he has received his scientific education. After consultation with the Head of the Department in which he elects to study, the scholar will submit, for the approval of the Commissioners, his proposed subject of research.

7 Scholars will be required to furnish reports of their work at the end of each year of tenure of their scholarships.

8 Scholars will be required to devote their whole time to the objects of the scholarship, and will be forbidden to hold any position of emolument which carries with it a duty inconsistent with their obligation to the Commissioners. Scholars must in any case obtain the consent of the Commissioners before accepting any additional emoluments.

9 In case of misconduct on the part of a scholar the Commissioners may, at their absolute discretion, deprive him of his scholarship and all emoluments therefrom.

The regulations adopted by the Senate are as follows —

The departments, students of which shall be eligible to be candidates, are —1 Bacteriology, 2 Biochemistry, 3 Biology (Zoology), 4 Botany, 5 Chemistry, 6 Engineering (metallurgical), 7 Engineering (chemical), 8 Engineering (electrical), 9 Engineering (mechanical), 10 Engineering (civil), 11 Engineering (mining), 12 Forestry, 13 Geology, 14 Mineralogy, 15 Pathology, 16 Physics, 17 Physiology.

A student shall not be deemed to be ineligible because of his being on the teaching staff of the University, if he has not been in receipt of a salary of more than \$900 per annum and has not been on the teaching staff for more than two years from graduation.

A student shall be deemed to be eligible in the year in which he intends to graduate, but if nominated for the Scholarship his nomination shall

be subject to his being successful in passing his examination for his degree

The nomination of the candidate or candidates shall be made by a Board composed of seven members appointed by the Senate, and the Board shall consist of the Chancellor, the President, the Reverend Dr Bowles, the Honourable Mr Justice Masten, the Honourable Mr Justice Riddell and Dr J A Worrell, and the Board shall have power to call to its aid as assessor any member of the teaching staff

#### THE RHODES SCHOLARSHIP

The trustees of the late Mr C J Rhodes have assigned one of the Rhodes Scholarships to the Province of Ontario

This scholarship will hereafter be thrown into open competition in the Province, subject to the following conditions —

1 Candidates must be British subjects, with at least five years' domicile in Canada, and unmarried They must have passed their nineteenth, but not have passed their twenty-fifth birthday, on October 1st of the year for which they are elected

2 Candidates must be at least in their Sophomore Year at some recognized degree-granting University or College of Canada, and (if elected) complete the work of that year before coming into residence at Oxford

3 Candidates must elect whether they will apply for the Scholarship of the Province in which they have acquired any considerable part of their educational qualification, or for that of the Province in which they have their ordinary private domicile, home or residence They must be prepared to appear before the Committee of Selection for the Province they select

In each Province there will be a Committee of Selection, appointed by the Trustees, in whose hands the nomination will rest The Secretary of the Committee of Selection for Ontario is Norman S Macdonnell, Esq, Barrister, Sun Life Building, Toronto

The Committees of Selection will be instructed to bear in mind the suggestions of Mr Rhodes, who wished that, in the choice of his Scholars, regard should be had to literary and scholastic attainments, fondness for and success in outdoor sports, qualities of manhood, moral force of character, and leadership in school and college life

Every candidate for a Scholarship is required to furnish to the Committee of Selection for his Province the following —

- (a) A certificate of age
- (b) A written statement from the President or Acting President of his College or University to the effect that his application as a suitable candidate is approved
- (c) Certified evidence as to the courses of study pursued by the Scholar at his University, and as to his gradings in those courses This evidence should be signed by the Registrar, or other responsible

- (d) A brief statement by himself of his athletic and general activities and interests at College, and of his proposed line of study at Oxford
- (e) Not more than four testimonials from persons well acquainted with him
- (f) References to four other responsible persons, whose addresses must be given in full, and of whom two at least must be professors under whom he has studied

It is in the power of the Committee of Selection to summon to a personal interview such of the candidates as they find desirable to see, and, save under exceptional circumstances, no Scholar will be elected without such an interview. Where such an interview is dispensed with, a written statement of the reasons will be submitted to the Trustees.

The Scholarships are of the value of £300 a year, and are tenable for three years, subject to the continued approval of the College at Oxford of which the Scholar is a member. They will be paid quarterly. The first payment (£75) will be made at the beginning of the Scholar's first term at Oxford. No request for any earlier payment can be considered.

On account of the increased cost of living the Rhodes Trust is giving an additional bonus of £50 per annum until further notice.

Rhodes Scholar, graduate of this Faculty —

W. J. Browne, B A Sc, 1919

#### THE McCHARLES PRIZE

This prize was established in connection with the bequest of the late Æneas McCharles of Provincial Government bonds of the value of \$10,000, and is awarded on the following terms and conditions, namely, that the interest therefrom shall be given from time to time, but not necessarily every year, like the Nobel prizes in a small way. (1) To any Canadian from one end of the country to the other, and whether student or not, who invents or discovers any new and improved process for the treatment of Canadian ores or minerals of any kind, after such process has been proved to be of special merit on a practical scale, (2) Or for any important discovery, invention or device by any Canadian that will lessen the dangers and loss of life in connection with the use of electricity in supplying power and light, (3) Or for any marked public distinction achieved by any Canadian in scientific research in any useful practical line. The following conditions, as passed by the Board of Governors, determine the method of award —

(1) The title shall be the McCharles Prize.

(2) The value of the prize shall be One Thousand Dollars (\$1,000 00) in money.

(3) The term "Canadian" for the purpose of this award shall mean any person Canadian born who has not renounced British alliance, and for the purpose of the award in the first of the three cases provided for by the bequest, domicile in Canada shall be an essential condition.

(4) Every candidate for the prize shall be proposed as such in writing by some duly qualified person. A direct application for a prize shall not be considered.

(5) No prize shall be awarded to any discovery or invention unless the same shall have been proved to the satisfaction of the awarding body, to possess the special practical merit indicated by the terms of the bequest.

(6) The order of priority in which the three cases stand in the wording of the bequest shall be observed in making the award, that is, the award shall go *caeteris paribus* to the inventor of methods of smelting Canadian ores, and, failing such inventions, to the inventor of methods for lessening the dangers attendant upon the use of electricity, and only in the third event, if no inventors of sufficient merit in the field of metallurgy and electricity present themselves, to the inventor distinguished in the general field of useful scientific research.

(7) The first award was made in 1910.

(8) The composition of the awarding body shall be as follows —

An expert in Mineralogy,

An expert in Electricity,

An expert in Physics,

and four other persons. All of the members of this body shall be nominated by the Board of Governors of the University of Toronto.

#### THE KHAKE UNIVERSITY AND Y M C A MEMORIAL SCHOLARSHIP FUND

The Khaki University and Y M C A Memorial Scholarship Fund was established by the Khaki University Committee. At the present time this fund is being used to make loans to returned-soldier students of the higher years. Applications for such loans should be made to the President of the University.

#### THE JARDINE MEMORIAL PRIZE FOR ENGLISH VERSE

1 This prize, of the value of \$100, shall be open to any regular undergraduate student who has been in actual attendance at the University during the academic year preceding the date of submission (November 1) or who graduated in the previous academic year.

2 The subject and metre of the poem shall be left to the choice of the competitor.

3 It is suggested that the length of the poem should be not less than 100 or more than 300 lines.

4 The poems shall be in the hands of the Registrar of the University by November 1st.

5 Each poem shall be signed with a pseudonym and the competitor's name shall be submitted to the Registrar in a sealed envelope on which the pseudonym shall be written.

6 With his or her name the competitor shall enclose a signed statement that the poem is absolutely his or her original work.

7 The competition shall be judged by a board of five examiners, consisting of the head of the Department of English in each of the four colleges, and of a fifth examiner to be chosen by these four

8 The examiners shall have the power to withhold the award in any year if no poem which has been submitted for that year be found worthy of the prize

Awarded in 1920 to H D Langford, 1921, E W McInnis, 1922, no award

#### THE UBUKATA FUND

The S Ubukata Fund of \$10,000, the gift of Mr S Ubukata, provides for the establishment of prizes, medals, scholarships and loans for which Japanese students of all faculties and colleges may be eligible Information regarding the conditions of award may be obtained from the Registrar of the University

#### HOLLINGER RESEARCH FELLOWSHIP

The Hollinger Consolidated Gold Mines, Limited, awarded a fellowship of \$1,200 for research in the Department of Mining Engineering for the session 1923-1924

#### JUNIOR INSTRUCTORSHIPS

Provision is made for the sessional appointment in various departments of graduates as Fellows or Demonstrators, whose duties shall consist of aiding in the work of instruction under the direction of the department concerned

Applications for appointment should be made in writing to the Secretary of the Faculty not later than September 1st

#### RESEARCH ASSISTANTSHIPS

A number of research assistants in the School of Engineering Research are appointed annually on salary, in the various departments, to carry on the work of research under the direction of members of the staff This work is accepted as partial fulfilment of the requirements for the degrees of M A Sc and M Arch These research assistants are usually recent graduates and are chosen from among those who have displayed special capacity for investigational work in their undergraduate courses Prospective applicants should consult with members of the staff as soon as possible after the annual examination

#### REGULATIONS RESPECTING EXAMINATIONS

##### REGULAR EXAMINATIONS

Promotions from one year to another are made on the results of the annual examinations A student proceeding to a degree must pass all the examinations in the subjects of his course and at the periods arranged from time to time by the Council

Candidates who fail in passing the annual examinations will be required to take again the whole course of instruction, both theoretical and practical, of the year in which they fail before presenting themselves a second time for examination (This repetition includes vacation work)

A student who in either term of the session fails to perform the work of his course in a manner satisfactory to the professors in charge, will not be allowed to present himself at the final examinations of the year

In the second, third and fourth years annual examinations will be held at the beginning of the second term on all subjects completed during the first term

No student will be allowed to write at any examination who has not paid all fees and dues for which he is liable at that time

The pass marks required on written examinations is 40% and on practical examinations 60%

Honours will be granted in each department to the students who obtain at least 50 per cent in each subject, and 75 per cent of the total number of marks allotted to the department at the annual examinations

Honour Graduate standing will be granted to those who obtain honours in the final and in one previous year

#### TERM EXAMINATIONS

Term examinations may be held in any subject and at any time at the discretion of the instructor or by order of the Council, and the results of such examination may, if the Council so decides, be incorporated with those of the annual examinations in the same subjects

#### SUPPLEMENTAL EXAMINATIONS

A candidate who fails in one or two subjects at the Annual Examinations will be required to take supplemental examinations in such subjects, but no student will be allowed a supplemental examination in the laboratory work of the fourth year

The supplemental written examinations will begin on the 24th day of September, 1924 Notice in writing of his intention of taking such examinations (including practical ones) must be received from the candidate by the Secretary of the Faculty, and the fee of \$10.00 received by the Bursar, not later than the first of September Council reserves the right to reject applications of, or impose penalties upon, those failing to comply with these requirements Arrangements will be made to conduct supplemental examinations at the Survey Camp for those students in attendance

In the case where a candidate desires to write upon an annual examination as a supplemental, his application must be received by the Secretary, and his fee by the Bursar, for the January examinations not later than the first of December and for the April examinations not later than the first of March

Where a candidate fails to pass a supplemental examination it will be counted as one of the two supplemental examinations which may be allowed him after the next annual examination

No student will be permitted to take the work required for a laboratory supplemental examination at any time other than the regular time of the session

### VACATION NOTES

#### *All Departments*

Vacation notes must be handed to the Department of Engineering Drawing on or before the first day of the session

Vacation notes must be on construction only, and contain not less than twenty, nor more than thirty pages of sketches. These sketches must be freehand pencil drawings with figured dimensions

Notes must be made in standard note books approved of by the Faculty. Notes which have been taken during the session in connection with the work in drawing will not count as vacation work

The minimum percentage of marks required for practical work must be made in the case of vacation notes (See page 101)

### VACATION LETTERS

#### *Department of Mining Engineering*

**THIRD YEAR STUDENTS** —Four letters to be written and mailed to the Professor of Mining Engineering, one each month, June, July, August and September, at least one letter must deal with a labour episode

**FOURTH YEAR STUDENTS** —The student may select either one of the following alternatives —

- A Four letters to be written and mailed, one each month, June, July, August and September, at least one letter to be on a labour episode or
- B One letter describing a labour episode to be written and mailed to the Professor of Mining Engineering not later than June 30th, and an article of suitable character and length for submitting to the Engineering Institute of Canada or the Canadian Mining Institute as a student's paper, to be written and mailed to the Professor of Mining Engineering not later than September 30th (See page 70)

### FIELD EXPERIENCE

#### *Department of Mining Engineering*

The following are the regulations governing field experience certificates:

A candidate for the degree in the Department of Mining Engineering will be required to present satisfactory evidence of having had at least six months' practical experience in work connected with mining, metallurgy or geology, for which he must have received regular wages



The time may be spent on geological survey, in ore dressing, smelter or luviation works, in an assay office in the vicinity of mining or metallurgical works, on any work in or about a mine other than as an office man or clerk, or in prospecting. Not more than three months on geological surveys will be accepted, and prospecting will only count one-half (i.e., four months' prospecting will be counted as two months) and must not be submitted for more than three of the six months.

In addition to the above, two months must be spent as office man or clerk.

Certificates must be made out, signed, countersigned and sent during the first term to the Secretary of the Faculty of Applied Science and Engineering, who will retain them.

### SHOP WORK

#### *Departments of Mechanical and Electrical Engineering*

Students in Mechanical and in Electrical Engineering are not granted their degree until certificates have been submitted to the Council, and accepted as satisfactory, showing not less than 1,600 hours of mechanical experience in production under commercial conditions. Preferably the work undertaken should be in one of the manufacturing industries or trades with which the course is related. Certificates, on the standard form which may be procured from the Secretary, must be presented during the first term.

It is not desirable that a student in these courses should enter the engineering industries without having acquired some experience in mechanical production and it is therefore required that he obtain this experience under commercial conditions, so that he can appreciate shop conditions and limitations.

### REGULATIONS RESPECTING TERM WORK

Students working in any laboratory must be governed by the regulations relating thereto as made known from time to time.

No laboratory reports or drawings may be removed from the laboratories without permission. The Council reserves the right to dispose of them as may be thought proper.

### FIELD WORK

Field Work in Surveying of the First and Second Years will be taken on the University grounds, during the first term.

No field notes will be counted which have not been taken in the field and during the hours allotted to such work.

Students taking practical astronomy are required to take observations in the field for time, latitude and azimuth.

## DEPARTMENTAL EXCURSIONS TO POINTS OF INTEREST

As a part of Laboratory Instruction excursions to points of technical interest, both in Toronto and elsewhere, are arranged by the staff. These excursions are treated as laboratory periods with the same requirements as to attendance and reports. The total transportation costs in any one year will probably not exceed Ten Dollars.

## SUMMER SURVEY SESSION

Practical surveying of the Third Year will be taken previous to the opening of the fall term during the months of August and September at the University Survey Camp situated on the shore of Gull Lake, and about five miles from the Village of Minden (lot No. 9 in 13th Concession of the Township of Lutterworth). The camp may be reached by taking the train leaving Lindsay for Haliburton, and getting off at Gelert. Conveyances will be on hand to meet students and take them to the camp. Personal effects must be limited to sixty pounds in weight, which must include two pairs of blankets, or their equivalent, beds and mattresses only will be provided.

Students will report at the camp on the dates shown on page 7.

Students of the Fourth Year in Department 1 who are taking the Astronomy Option are required to spend two weeks at the camp, beginning about September 15th, after completing their Third Year.

A field course in Geology will be given students in Department 2 the last week of the session at the camp.

## DRAFTING ROOMS

Drawings and briefs for same, that are required to be finished the first term of the session will not be counted unless finished in that term.

No drawings or briefs for same will be counted which have not been made in the drafting rooms, and during the hours allotted to such work.

## THESES

In the Fourth Year each student is required to prepare a thesis on a subject approved by the Council. The title of the thesis must be sent to the Secretary of the Faculty for approval on or before November 1st, and the completed thesis must be handed in by noon of the first day of lectures of the second term and shall become the property of the University. The rules governing size, form, etc., may be obtained on application to the Secretary. (See also p. 101.)

The thesis of each student who works upon a research problem in his fourth year must deal with the subject of investigation. In such cases the theses must be handed in not later than one week prior to the close of the annual examinations.

## REGULATIONS RESPECTING STUDENTS IN ATTENDANCE

All interference on the part of any student with the personal liberty of another by arresting him, or summoning him to appear before any unauthorized tribunal of students, or otherwise subjecting him to any indignity or personal violence, is forbidden by the Caput

A student who is under suspension, or who has been expelled from a College or from the University, will not be admitted to the University buildings or grounds

The name of the University is not to be used in connection with a publication of any kind without the permission of the Caput

No student will be enrolled in any year, or be allowed to continue in attendance, whose presence is deemed by the Council to be prejudicial to the interests of the University

Students proceeding regularly to the degree are required to attend the courses of instruction and the examinations in all subjects prescribed for students of their respective standing, and no student will be permitted to remain in the University who persistently neglects academic work

Unless special permission is granted by the Council, a student who, at the close of two sessions in the University, has failed to secure standing in his year, will not be permitted registration in the Faculty of Applied Science and Engineering

The constitution of every University society or association of students in the Faculty of Applied Science and Engineering and all amendments to any such constitution must be submitted for approval to the Council of the Faculty All programmes of such societies or associations must, before publication, receive the sanction of the Council of the Faculty through the Dean Permission to invite any person not a member of the Staff of the University to preside at or address a meeting of any society or association must be similarly obtained

## EXEMPTIONS

Applications for exemption from any of the regulations shall be made to the Council in writing and the particulars of the case fully stated

A student shall submit to Council evidence of illness or other handicap which occurs during the session immediately after its occurrence no petition for leniency on account of such incidents will be considered if received after the third day following the last day of examinations

## THE GRADUATING DEPARTMENTS

The instruction in the various departments leading through the four years to the degrees of B A Sc and B Arch is designed to give the student a thorough grounding in the fundamentals of the engineering and architectural professions, and in addition a sufficient familiarity with applications of the principles to make him immediately useful upon graduation

With the exception of Architecture and Chemical Engineering the various courses are very similar in the first year The succeeding years are devoted to the more particular work of the departments In the fourth year specialization develops to the extent of various options

The graduating courses are so designed, with many subjects common to the departments of the several years, that the student upon graduation will find himself sufficiently equipped in the various fundamentals to pursue readily his studies in branches other than the one in which he has graduated and indeed to be useful in them as well The courses in this Faculty are not planned to make specialists, the process of specialization is more properly deferred until after graduation

In the teaching of the fundamentals, instruction is not confined wholly to applied science As the future engineer is vitally concerned with the development of the country, it is essential that he be instructed as well in certain fundamentals in economics, administration and business which, in conjunction with his scientific training, will enable him to develop his full value

In some departments laboratory work in the fourth year consists of an investigation of some specific problem In all cases the student's knowledge of the original literature and primary sources of information is extended, and he is given a very desirable and useful training in methods of research In this way the undergraduate course is linked with the graduate course (see p 102) and with the work of the School of Engineering Research (see p 102)

On the following pages the courses of instruction in the different departments are set forth in detail The time devoted to lectures and practical work is indicated as accurately as possible, but is subject to modification from time to time as occasion may require

For further information concerning the opportunities available for graduates of this Faculty, reference should be made to the pamphlet issued by the Director of Extension Work and Publicity of the University entitled "Opportunities for Graduates in Applied Science "

## 1 DEPARTMENT OF CIVIL ENGINEERING

The course in Civil Engineering is designed to meet the needs of the students who intend to take up such work as Geodetic Surveying, Railway Engineering, Municipal Engineering, Sanitary Engineering, Highway Engineering, Structural Engineering, Hydraulic Engineering, and administrative work in connection with both Engineering and Industrial undertakings

## FIRST YEAR

Subject	No	Hours per week			
		First Term		Second Term	
		Lect	Lab'y	Lect	Lab'y
Calculus	236	2	0	2	0
Analytical Geometry	238	1	0	2	0
Descriptive Geometry	160	1	0	1	0
Surveying	270, 271	1	5	1	0
Statics	1	2	0	2	0
Dynamics	2	2	0	2	0
Elementary Chemistry	85	2	0	1	0
Electricity	135	2	0	2	0
Optics	185	1	2	1	2
Technical English	122 (a)	1	0	1	0
Business	121	0	0	1	0
Engineering Drawing	166	0	11	0	18
Physical Training		0	2	0	2

## SECOND YEAR

Subject	No.	Hours per week			
		First Term		Second Term	
		Lect	Lab'y	Lect	Lab'y
Vacation Work	236				
Calculus	237	1	0	1	0
Spherical Trigonometry	239	1	0	0	0
Elementary Astronomy	71	1	0	1	0
Descriptive Geometry	162	1	0	1	0
Surveying	272, 273	1	9	1	0
Dynamics	3	1	0	1	0

## CIVIL ENGINEERING—SECOND YEAR—Cont

Subject	No	Hours per week			
		First Term		Second Term	
		Lect	Lab'y	Lect	Lab'y
Mechanics of Materials	4	2	0	2	0
Engineering Chemistry	93	1	0	0	0
Inorganic Chemistry A	87A	1	0	0	0
Organic Chemistry	95	0	0	1	0
Metallurgy	241	0	0	1	0
Geology	195	0	0	2	0
Mineralogy	257, 259	2	1	0	2
Hydrostatics	186	0	0	1	1
Heat	187	1	1½	0	0
Photography	188	1	1½	0	1½
Economics & Finance	123	1	0	1	0
Chemical Laboratory	89	0	3	0	3
Engineering Drawing	169	0	4½	0	13½
Physical Training		0	2		2

## THIRD YEAR

Subject	No	Hours per week			
		First Term		Second Term	
		Lect	Lab'y	Lect	Lab'y
Survey Camp	275				
Engineering Chemistry	102	1	0	1	0
Theory of Structures	6	2	0	2	0
Thermodynamics	223, 224	1	0	1	2
Hydraulics	205, 206	2	0	2	3
Least Squares	240	0	0	1	0
Practical Astronomy and Geodesy	72, 73	2	2	2	0
Descriptive Geometry	164	1	0	0	0
Surveying and Levelling	274	1	0	1	0
Electricity	143, 144	1	3	1	0
Stress Graphics	10	1	0	1	0
Cements and Concrete	11	0	0	1	0
Engineering Geology	197	1	0	1	0
Commercial Law	124	1	0	1	0
Public Speaking	133	1	0	0	0
Mechanics of Materials Laboratory	9	0	3	0	0
Engineering Drawing	173	0	12	0	15

## CIVIL ENGINEERING—FOURTH YEAR

## (a) Astronomy Option

Subject	No	Hours per week			
		First Term		Second Term	
		Lect	Lab'y	Lect	Lab'y
Survey Camp	275				
Thesis	285	0	3	0	0
Engineering Economics	125	0	0	1	0
Engineering Law	126	1	0	0	0
Contracts and Specifications	127	0	0	1	0
Management	128	1	0	0	0
Astronomy	74, 76	2	23	2	0
Geodesy	75, 76	2	0	2	23
Photographic Surveying	191	1	2	0	0

## FOURTH YEAR

## (b) Municipal Engineering Option

Subject	No	Hours per week			
		First Term		Second Term	
		Lect	Lab'y	Lect	Lab'y
Thesis	285	0	3	0	0
Engineering Economics	125	0	0	1	0
Engineering Law	126	1	0	0	0
Contracts and Specifications	127	0	0	1	0
Management	128	1	0	0	0
Reinforced Concrete	15	1	0	1	0
Foundations	14	1	0	1	0
Hydraulics	211	1	3	0	0
Structural Design	17	1	0	0	0
Structural Design Drawing	179	0	0	0	5
Miscellaneous Structures	19	0	0	1	0
Hygiene and Bacteriology	82	1	0	1	6
Biology	81	0	5	0	0
Sanitary Chemistry	117	1	6	0	4
Sanitary Engineering	280	1	3	1	6
Highway Engineering	281	1	3	1	3
Municipal Seminar (including Town Planning)	282	0	3	0	3
Municipal Administration (including Civics)	132	1	0	1	0

CIVIL ENGINEERING—FOURTH YEAR—(c) Structural Engineering Option

Subject	No	Hours per week			
		First Term		Second Term	
		Lect	Lab'y	Lect	Lab'y
Thesis	285	0	3	0	0
Engineering Economics	125	0	0	1	0
Engineering Law	126	1	0	0	0
Contracts and Specifications	127	0	0	1	0
Management	128	1	0	0	0
Reinforced Concrete	15	1	0	1	0
Foundations	14	1	0	1	0
Theory of Structures	12	2	0	2	0
Physical Metallurgy	252	1	0	1	0
Structural Design	17, 18	2	0	1	0
Miscellaneous Structures	19	0	0	1	0
Mechanics of Materials Laboratory	13	0	3	0	6
Structural Design Drawing	178	0	22	0	22

FOURTH YEAR—(d) Hydraulic Engineering Option

Subject	No	Hours per week			
		First Term		Second Term	
		Lect	Lab'y	Lect	Lab'y
Thesis	285	0	3	0	0
Engineering Economics	125	0	0	1	0
Engineering Law	126	1	0	0	0
Contracts and Specifications	127	0	0	1	0
Management	128	1	0	0	0
Reinforced Concrete	15	1	0	1	0
Foundations	14	1	0	1	0
Theory of Structures	12	2	0	2	0
Hydraulics	207, 208, 209	3	10	3	10
Physical Metallurgy	252	1	0	1	0
Structural Design	17, 18	2	0	1	0
Miscellaneous Structures	19	0	0	1	0
Electrical Laboratory	144	0	0	0	3
Mechanics of Materials Laboratory	13	0	6	0	8
Structural Design Drawing	179	0	4	0	8



## CIVIL ENGINEERING—FOURTH YEAR

## (e) Railway Engineering Option

Subject	No	Hours per week			
		First Term		Second Term	
		Lect	Lab'y	Lect	Lab'y
Thesis .	285	0	3	0	0
Engineering Economics	125	0	0	1	0
Engineering Law	126	1	0	0	0
Contracts and Specifications	127	0	0	1	0
Management .	128	1	0	0	0
Reinforced Concrete	15	1	0	1	0
Foundations	14	1	0	1	0
Theory of Structures	12	2	0	2	0
Hydraulics	211	1	3	0	0
Special Geology	204	0	0	1	1½
Physical Metallurgy	252	1	0	1	0
Electrical Laboratory	144	0	0	0	3
Motive Power	225	1	0	1	0
Railway and Miscellaneous Structures	20, 19	1	0	1	0
Railway Economics .	131	2	0	2	0
Railway Location and Design	276	1	8	1	6
Mechanics of Materials Laboratory	13	0	3	0	6
Structural Design Drawing	179	0	6	0	6

## 2 DEPARTMENT OF MINING ENGINEERING

The course in Mining Engineering, which originated in 1878 as a course in Assaying and Mining Geology, is intended to serve as a preliminary training for those who expect to practice in some branch of Mining Engineering, such as exploration of mining areas and primary development, mine surveying, mining processes involving civil, mechanical, and electric work of underground workings, mining machinery and operation, milling and treatment of ores, assaying and other forms of analysis and research, and administrative work in connection with both Engineering and Industrial undertakings.

## FIRST YEAR

Subject	No	Hours per week			
		First Term		Second Term	
		Lect	Lab'y	Lect	Lab'y
Calculus	236	2	0	2	0
Analytical Geometry	238	1	0	2	0
Descriptive Geometry	160	1	0	1	0
Surveying	270, 271	1	5	1	0
Statics	1	2	0	2	0
Dynamics	2	2	0	2	0
Elementary Chemistry	85	2	0	1	0
Electricity	135	2	0	2	0
Mineralogy	255, 258	2	1	0	3
Technical English	122 (a)	1	0	1	0
Business	121	0	0	1	0
Mining Laboratory	50	0	0	0	3
Engineering Drawing	166	0	11	0	14
Physical Training		0	2	0	2

## MINING ENGINEERING—SECOND YEAR

Subject	No	Hours per week			
		First Term		Second Term	
		Lect	Lab'y	Lect	Lab'y
Vacation Notes	286				
Descriptive Geometry	162	1	0	1	0
Surveying	272, 273	1	6	1	0
Dynamics	3	1	0	1	0
Mechanics of Materials	4	2	0	2	0
Inorganic Chemistry A	87A	1	0	0	0
Inorganic Chemistry B	87B	0	0	1	0
Organic Chemistry	95	0	0	1	0
Metallurgy	241	0	0	1	0
Geology	195	0	0	2	0
Mineralogy	260, 261	1	2	1	2
Mining	51	1	3	0	0
Theory of Measurements	65	1	0	0	0
Steam Engines	216	0	0	1	0
Theory of Mechanism	230	2	0	2	0
Economics and Finance	123	1	0	1	0
Chemical Laboratory	89, 90	0	6	0	6
Engineering Drawing	189	0	3	0	12
Physical Training		0	2	0	2

## THIRD YEAR

Subject	No	Hours per week			
		First Term		Second Term	
		Lect	Lab'y	Lect	Lab'y
Vacation Letters	68				
Survey Camp	275				
Geological Field Work	193				
Engineering Chemistry	102	1	0	1	0
Theory of Structures	7	2	0	0	0
Hydraulics	205	2	0	2	0
Analytical Chemistry	88	1	0	1	0
Electricity	143	1	0	1	0
Assaying	45, 46	1	3	0	3
Economic Geology	202, 203	1	0	3	2
Dynamic and Structural Geology	198	1	0	0	0
Ore Dressing	55, 59	1	3	1	3
Physics of Ore Dressing	64	1	0	1	0
Mining	54	1	0	1	0
Petrography	262	1	0	1	0
Metallurgy	243	1	0	1	0

## MINING ENGINEERING—THIRD YEAR—Cont

Subject	No	Hours per week			
		First Term		Second Term	
		Lect	Lab'y	Lect	Lab'y
Physical Metallurgy	244	0	0	2	0
Commercial Law	124	1	0	1	0
Petrography Laboratory	283	0	2	0	2
Introductory Research	66	0	0	0	3
Chemical Laboratory	99	0	3	0	6
Mechanics of Materials Laboratory	9	0	0	0	3
Engineering Drawing	174	0	9	0	0

## FOURTH YEAR

Subject	No	Hours per week			
		First Term		Second Term	
		Lect	Lab'y	Lect	Lab'y
Vacation Letters	68				
Thesis	67	0	7	0	10
Mine Cost Keeping and Management	56	1	0	1	0
Thermodynamics	223	1	0	1	0
Assaying	47, 48	0	0	1	3
Electrochemistry	107, 108	2	3	0	0
Geology, Pleistocene and Physiographic	194, 201	1	1	1	0
Geology, Precambrian	199	2	0	0	0
Geology, Mining	200	0	0	2	0
Metallurgy	247	1	0	1	6
Mining	55	1	0	1	0
Ore Dressing	60, 61	1	6	1	0
Business		1	0	1	0
Metallography	251	0	0	0	3
Power {	Electrical Lab'y	144	0	3	0
	Hydraulics Lab'y	210	0	0	3
	Thermodynamics Lab'y	224	0	3	0

## 3 DEPARTMENT OF MECHANICAL ENGINEERING

The course in Mechanical Engineering is intended to serve as a preliminary training for those who intend to take up work connected with the design, manufacture, installation, or operation of machinery for the use of power as generated by steam, gas, oil, and water, and machinery and methods for the production, transportation, and handling of material, heating, ventilation, refrigeration, compressing of air, pumping of water, and all problems of a mechanical nature, and administrative work in connection with both Engineering and Industrial undertakings

## FIRST YEAR

Subject	No	Hours per week			
		First Term		Second Term	
		Lect	Lab'y	Lect	Lab'y
Calculus	236	2	0	2	0
Analytical Geometry	238	1	0	2	0
Descriptive Geometry	160	1	0	1	0
Surveying	270, 271	1	5	1	0
Statics	1	2	0	2	0
Dynamics	2	2	0	2	0
Elementary Chemistry	85	2	0	1	0
Electricity	135	2	0	2	0
Illuminating Engineering	185	1	2	1	2
Technical English	122 (a)	1	0	1	0
Business	121	0	0	1	0
Engineering Drawing	166	0	11	0	18
Physical Training		0	2	0	2

## MECHANICAL ENGINEERING—SECOND YEAR

Subject	No	Hours per week			
		First Term		Second Term	
		Lect	Lab'y	Lect	Lab'y
Vacation Work	286	0	0	0	0
Calculus	237	1	0	1	0
Descriptive Geometry	162	1	0	1	0
Dynamics	3	1	0	1	0
Mechanics of Materials	4	2	0	2	0
Engineering Chemistry	93	1	0	0	0
Inorganic Chemistry A	87A	1	0	0	0
Organic Chemistry	95	0	0	1	0
Metallurgy	241	0	0	1	0
Hydrostatics	186	0	0	1	1½
Elementary Machine Design	232	1	0	1	0
Electricity	136, 137	2	3	2	3
Steam Engines	216	1	0	1	0
Theory of Mechanism	230	2	1½	2	1½
Economics and Finance	123	1	0	1	0
Chemical Laboratory	89	0	3	0	3
Engineering Drawing	170	0	13	0	11
Physical Training		0	2	0	2

## THIRD YEAR

Subject	No	Hours per week			
		First Term		Second Term	
		Lect	Lab'y	Lect	Lab'y
Engineering Chemistry	102	1	0	1	0
Theory of Structures	7	2	0	0	0
Thermodynamics	217, 219	2	3	2	3
Hydraulics	205, 206	2	0	2	3
Heat Engines	218	2	0	2	0
Mechanics of Machinery	231	1	0	1	0
Machine Design	233	2	4	2	10
Magnetism Electricity	138, 140	2	3	0	0
Alternating Current	139, 140	1	0	1	3
Physical Metallurgy	244	0	0	2	0
Compound Stress	10 (a)	1	0	0	0
Commercial Law	124	1	0	1	0
Mechanics of Materials Laboratory	9	0	0	0	3
Engineering Drawing	177	0	9	0	0

## MECHANICAL ENGINEERING—FOURTH YEAR

## (a) Power Plant Option

Subject	No	Hours per week			
		First Term		Second Term	
		Lect	Lab'y	Lect	Lab'y
Thesis	285	0	0	0	0
Engineering Economics	125	0	0	1	0
Structural Design	17, 18, 180	2	3	0	3
Electrical Laboratory	144	0	0	0	3
Heat Treatment of Iron and Steel	253	1	0	1	0
Machine Design	235	2	7	1	6
Thermodynamics and Heat Engines	220, 221, 222	3	9	3	9
Hydraulics	207, 208, 209	3	8	3	8

## FOURTH YEAR

## (b) Water Power Option

Subject	No	Hours per week			
		First Term		Second Term	
		Lect	Lab'y	Lect	Lab'y
Thesis	285	0	0	0	0
Engineering Economics	125	0	0	1	0
Structural Design	17, 18, 180	2	3	0	3
Electrical Laboratory	144	0	0	0	3
Heat Treatment of Iron and Steel	253	1	0	1	0
Machine Design	235	2	5	1	7
Hydraulics	207, 208, 209	3	11	3	11
Mechanics of Materials	13	0	6	0	3
Reinforced Concrete	15	1	0	1	0
Foundations	14	1	0	1	0
Reinforced Concrete Design	181	0	3	0	3

## MECHANICAL ENGINEERING—FOURTH YEAR

## (c) Industrial Option

Subject	No	Hours per week			
		First Term		Second Term	
		Lect	Lab'y	Lect	Lab'y
Thesis	285	0	0	0	0
Engineering Economics	125	0	0	1	0
Structural Design	17, 18, 180	2	3	0	3
Electrical Laboratory	144	0	0	0	3
Heat Treatment of Iron and Steel	253	1	0	1	0
Heating, Ventilation and Refrigeration	226, 227, 228	1	3	1	3
Machine Design	235	2	6	1	8
Thermodynamics and Heat Engines	220, 221, 222	3	6	3	12
Hydraulics	200, 212	1	9	1	0
Industrial Management	130	1	0	1	0



## 4 DEPARTMENT OF ARCHITECTURE

The instruction in this department is arranged mainly to lay a broad foundation for the subsequent professional life of its graduates. The curriculum is based on the belief that an architect should have an education in liberal studies, that he should understand and appreciate the other arts in their relation to architecture, and that his training in design should teach him to regard building construction as an expression of his art rather than as an end in itself. With this object in view, the course in Architecture, which was originally derived from the Engineering courses, has been gradually broadened out to include an elementary training in the sister arts of painting and sculpture, and also courses in French and English.

## FIRST YEAR

Subject	No	Hours per week			
		First Term		Second Term	
		Lect	Lab'y	Lect	Lab'y
Calculus	236	2	0	2	0
Analytical Geometry	238	1	0	2	0
Descriptive Geometry	161	1	0	1	0
Statics	1	2	0	2	0
Building Measurements	37	1	7	1	0
Elements of Architecture	28	1	0	1	0
History of Architecture	25	1	3	1	0
Technical English	122(a)	1	0	1	0
French	266	2	0	2	0
Modelling	36	0	2	0	2
Freehand Drawing	35	0	3	0	2
Architectural Drawing	167	0	9	0	18
Physical Training		0	2	0	2

## ARCHITECTURE—SECOND YEAR

Subject	No	Hours per week			
		First Term		Second Term	
		Lect	Lab'y	Lect	Lab'y
Vacation Work	285				
Descriptive Geometry	163	1	0	1	0
Mechanics of Materials	5	2	0	2	0
Architectural Design	31	1	0	1	0
History of Architecture	26	1	0	1	0
History of Ornament	29	1	0	1	0
Illumination	189	1	1½	1	1½
Economics and Finance	123	1	0	1	0
Technical English	122(b)	2	0	2	0
French	266	1	0	1	0
Modelling	36a	0	2	0	2
Freehand Drawing	35a	0	3	0	3
Architectural Design	171	0	17	0	17
Architectural Drawing					
Physical Training					

## THIRD YEAR

Subject	No	Hours per week			
		First Term		Second Term	
		Lect	Lab'y	Lect	Lab'y
Structural Design	16	2	0	2	0
Acoustics	190	1	1½	1	0
Building Materials	38	2	0	2	0
History of Architecture	27	1	0	1	0
History of Fine Art	30	1	0	1	0
Architectural Design	32	1	0	1	0
Commercial Law	124	1	0	1	0
French	266	1	0	1	0
Modelling	36b	0	2	0	2
Water Colour Painting	35b	0	3	0	3
Architectural Design	175	0	18	0	18
Architectural Drawing					

## ARCHITECTURE—FOURTH YEAR

Subject	No	Hours per week			
		First Term		Second Term	
		Lect	Lab'y	Lect	Lab'y
Thesis	286	0	3	0	3
Contracts and Specifications	127	0	0	1	0
Structural Design	16	1	3	1	3
Heating and Ventilating	40	1	0	1	0
Sanitary Science	39	1	0	1	0
Drawing from Life	35c	0	3	0	3
Modelling from Life	36c	0	2	0	2
AND ONE OF					
Architectural Design	33	2	24	2	22
Architectural Engineering	34, 16	4	22	3	20

## 6 DEPARTMENT OF CHEMICAL ENGINEERING

The course is designed to give the student a thorough training in Chemistry and its application to industry, as well as a general knowledge of the elements of thermodynamics, hydraulics, machine design, structural design, electricity and metallurgy. A preliminary training of this nature with subsequent practical experience will enable him to undertake the design and construction and also the operation and management of the plant required in such branches of chemical industry as are concerned with the production of chemical and pharmaceutical products, rubber goods, leather and glue, soap, meat products, food-stuffs, oils of all kinds, sugar, pulp and paper, illuminating gas, coal tar and wood distillates, paints and varnishes, explosives, dyes, glass, portland cement, metals and their alloys, electrochemical products, fermentation products, printers' inks, fertilizers, ceramic and building materials, etc.

## FIRST YEAR

Subject	No	Hours per week			
		First Term		Second Term	
		Lect	Lab'y	Lect	Lab'y
Calculus	236	2	0	2	0
Analytical Geometry	238	1	0	2	0
Descriptive Geometry	160	1	0	1	0
Statics	1	2	0	2	0
Dynamics	2	2	0	2	0
Elementary Chemistry	85	2	0	1	0
Electricity	135	2	0	2	0
Optics	185	1	2	1	2
Technical English	122(a)	1	0	1	0
German	267	1	0	1	0
Business	121	0	0	1	0
Mineralogy Laboratory	256	0	0	0	3
Biological Laboratory	80	0	3	0	3
Chemical Laboratory	86	0	10	0	10
Engineering Drawing	168	0	4	0	4
Physical Training		0	2	0	2

## CHEMICAL ENGINEERING—SECOND YEAR

Subject	No	Hours per week			
		First Term		Second Term	
		Lect	Lab'y	Lect	Lab'y
Vacation Work	286				
Calculus	237	1	0	1	0
Mechanics of Materials	4	2	0	2	0
Engineering Chemistry	93	1	0	0	0
Organic Chemistry	96	2	0	2	0
Metallurgy	241	0	0	1	0
Hydrostatics	186	0	0	1	1
Elementary Machine Design	232	1	0	1	0
Electricity	136, 137	2	3	2	3
Industrial Chemistry	94	1	0	1	0
Physical Chemistry	98	2	0	2	0
Inorganic Chemistry A	87A	1	0	0	0
Inorganic Chemistry B	87B	0	0	1	0
German	267	1	0	1	0
Economics and Finance	123	1	0	1	0
Chemical Laboratory	92	0	10	0	12
Engineering Drawing	172	0	7	0	3
Physical Training		0	2	0	2

## THIRD YEAR

Subject	No	Hours per week			
		First Term		Second Term	
		Lect	Lab'y	Lect	Lab'y
Engineering Chemistry	102	1	0	1	0
Theory of Structures	7	2	0	0	0
Thermodynamics	217, 224	2	2	2	0
Hydraulics	205, 206	2	0	2	1
Metallurgy	243	1	0	1	0
Physical Metallurgy	244	0	0	2	0
Assaying	49	0	0	0	3
Analytical Chemistry	88	1	0	1	0
Electrochemistry	107, 108	2	3	0	0
Industrial Chemistry	103	1	0	1	0
Organic Chemistry	106	2	0	2	0
Chemical Plant	104	1	0	1	0
German	267	1	0	1	0
Commercial Law	124	1	0	1	0
Power	144, 206	0	3	0	3
Chemical Laboratory	100	0	7	0	13
Engineering Drawing	177	0	6	0	0
Electrical Laboratory	144	0	0	0	3

## CHEMICAL ENGINEERING—FOURTH YEAR

Subject	No	Hours per week			
		First Term		Second Term	
		Lect	Lab'y	Lect	Lab'y
Thesis	285				
Industrial Management	130	1	0	1	0
Machine Design	234	1	0	1	3
German	267	1	0	1	0
<i>or</i> Spanish	268	1	0	1	0
Inorganic Chemistry	109	2	0	2	0
Organic Chemistry	110	1	0	1	0
AND ONE OF					
Electrochemistry	114, 115	2	*	2	*
Industrial Chemistry	112, 113	1	*	1	*
Sanitary and Forensic	116	1	*	2	*
Chemistry and Bac- teriology					
Metallurgy	247	1	*	1	*
Physical Metallurgy	250	1	*	1	*
Zymology	283	*	*	*	*

\*All time not otherwise allotted must be spent in the various laboratories in the proportions assigned by the Department

## 7 DEPARTMENT OF ELECTRICAL ENGINEERING

The course in electrical engineering is designed for those who are looking forward to work in connection with the design, manufacture, installation, or operation of electrical machinery and equipment for the generation, transmission, and utilization of power, for domestic and industrial purposes including its many applications to problems of intercommunication in connection with railway, telephone, telegraph, or radio equipment, to work in connection with electrochemical processes, and to administrative work in connection with both Engineering and Industrial undertakings

## FIRST YEAR

Subject	No	Hours per week			
		First Term		Second Term	
		Lect	Lab'y	Lect	Lab'y
Calculus	236	2	0	2	0
Analytical Geometry	238	1	0	2	0
Descriptive Geometry	160	1	0	1	0
Surveying	270, 271	1	5	1	0
Statics	1	2	0	2	0
Dynamics	2	2	0	2	0
Elementary Chemistry	85	2	0	1	0
Electricity	135	2	0	2	0
Illuminating Engineering	185	1	2	1	2
Technical English	122(a)	1	0	1	0
Business	121	0	0	1	0
Engineering Drawing	166	0	11	0	18
Physical Training		0	2	0	0

ELECTRICAL ENGINEERING—SECOND YEAR

Subject	No	Hours per week			
		First Term		Second Term	
		Lect	Lab'y	Lect	Lab'y
Vacation Work	286				
Calculus	237	1	0	1	0
Descriptive Geometry	162	1	0	1	0
Dynamics	3	1	0	1	0
Mechanics of Materials	4	2	0	2	0
Engineering Chemistry	93	1	0	0	0
Organic Chemistry	95	0	0	1	0
Inorganic Chemistry A	87A	1	0	0	0
Hydrostatics	186	0	0	1	1½
Elementary Machine Design	232	1	0	1	0
Electricity	136, 137	2	3	2	3
Steam Engines	216	1	0	1	0
Theory of Mechanism	230	2	1½	2	1½
Economics and Finance	123	1	0	1	0
Chemical Laboratory	89	0	3	0	3
Engineering Drawing	166	0	12	0	12
Physical Training		0	2	0	2

THIRD YEAR

Subject	No.	Hours per week			
		First Term		Second Term	
		Lect	Lab'y	Lect	Lab'y
Engineering Chemistry	102	1	0	1	0
Thermodynamics	217, 219	2	2	2	1½
Hydraulics	206	2	0	2	1
Heat Engines	218	1	0	1	0
Mechanics of Machinery	231	1	0	1	0
Machine Design	233	2	4½	2	4½
Alternating Current	139	1	0	2	0
Physical Metallurgy	244	0	0	2	0
Electrochemistry	107, 108	2	3	0	0
Magnetism and Electricity	138	2	0	1	0
Electrical Design	141, 142	1	3	1	3
Commercial Law	124	1	0	1	0
Electrical Laboratory	140	0	6	0	6



## ELECTRICAL ENGINEERING—FOURTH YEAR

Subject	No	Hours per week			
		First Term		Second Term	
		Lect	Lab'y	Lect	Lab'y
Thesis	285				
Engineering Economics	125	0	0	1	0
Industrial Management	130	1	0	1	0
Applied Electricity	145, 146	4	20	4	19
AND ONE OF					
Hydraulics	207, 208, 209	3	9	3	10
Thermodynamics	220, 221, 222	3	9	3	9
Electrochemistry	114, 115	2	9	2	9
OR					
Radiotelegraphy and	147, 148	2	9	2	9
Acoustics	190	1	1	0	0

## 8 DEPARTMENT OF METALLURGICAL ENGINEERING

This course is designed for those who intend to take up work in connection with the production, treatment and working of metals for the purposes of industry, or the design, construction, or operation of metallurgical plants including smelters, furnaces, foundries, refineries, and lamination works, and administrative work in connection with both Engineering and Industrial undertakings

## FIRST YEAR

Subject	No	Hours per week			
		First Term		Second Term	
		Lect	Lab'y	Lect	Lab'y
Calculus	236	2	0	2	0
Analytical Geometry	238	1	0	2	0
Descriptive Geometry	160	1	0	1	0
Surveying	270, 271	1	5	1	0
Statics	1	2	0	2	0
Dynamics	2	2	0	2	0
Elementary Chemistry	85	2	0	1	0
Electricity	135	2	0	2	0
Technical English	122(a)	1	0	1	0
Business	121	0	0	1	0
Mineralogy Laboratory	256	0	0	0	3
Engineering Drawing	166	0	11	0	14
Physical Training		0	2	0	2

## SECOND YEAR

Subject	No	Hours per week			
		First Term		Second Term	
		Lect	Lab'y	Lect	Lab'y
Dynamics	3	1	0	1	0
Mechanics of Materials	4	2	0	2	0
Chemistry	87A, 87B, 88, 91	2	14	1	13
Metallurgy	241, 242	1	0	2	0
Geology and Ore Deposits	196	1	1	1	1
Steam Engines	216	1	0	0	0
Electricity	136, 137	2	3	2	3
Spanish	268	1	0	1	0
Economics and Finance	123	1	0	1	0
Engineering Drawing	172	0	3	0	6
Physical Training		0	2	0	2

## METALLURGICAL ENGINEERING—THIRD YEAR

Subject	No	Hours per week			
		First Term		Second Term	
		Lect	Lab'y	Lect	Lab'y
Engineering Chemistry	102	1	0	1	0
Cements and Concrete	11	0	0	1	0
Heat Engines	218	1	0	1	0
Electricity	143, 144	1	3	1	3
Electrochemistry	107, 108	2	3	0	0
Assaying	45, 46	1	3	0	3
Ore Dressing	58, 59	1	3	1	3
Mining	51, 52	1	0	1	0
Metallurgy	245	2	3	1	6
Physical Metallurgy	246	1	3	1	0
Machine Design	234	1	0	1	3
Commercial Law	124	1	0	1	0
Chemical Laboratory	101	0	0	0	6
Engineering Drawing	177	0	3	0	0
Analytical Chemistry	88	1	0	1	0

## FOURTH YEAR

Subject	No	Hours per week			
		First Term		Second Term	
		Lect	Lab'y	Lect	Lab'y
Thesis	285	0	6	0	6
Engineering Economics	125	0	0	1	0
Contracts and Specifications	127	0	0	1	0
Plant Management	129	0	0	1	0
Thermodynamics	223	1	0	1	0
Assaying	47, 48	0	0	1	3
Ore Dressing	60, 61	1	6	1	0
Electrochemistry	114, 115	2	3	2	3
Metallurgy	249	1	0	1	0
Metallurgy Problems	248	2	4	2	4
Physical Metallurgy	250	1	3	1	3
Power { Thermodynamic Laboratory	224	0	3	0	0
Power { Hydraulic Laboratory	210	0	0	0	3

## OUTLINE OF LECTURE AND LABORATORY COURSES PROCEEDING TO BACHELOR DEGREES

On the following pages the courses of instruction are set forth in detail. The time devoted to the various subjects, both for lectures and practical work, is indicated as accurately as possible, the hours, however, shown in the prescriptive schedules on pages 37 to 59 will govern.

The curriculum as printed is intended to cover the prescription for the current year only and does not imply the right of a student to have the course unchanged during any subsequent year of his attendance.

The courses are designed to give the student a sound training in the fundamental scientific principles on which the various branches of engineering are based. The instruction is given by means of lectures and practical work in the laboratories, the drafting rooms and the field.

The courses in the first two years are devoted to the theoretical and essential scientific requirements of the engineering profession as a whole, with an introduction in a few cases of the practical application of these to engineering problems.

In the third and fourth years, the subjects of the former years are continued with particular attention paid to their application to modern engineering practice in the problems of design, erection, installation and operation peculiar to the several branches of the profession.

### APPLIED MECHANICS

#### 1 *Statics* —T R Loudon

All Departments, I Year, 2 hours per week, both terms

This course of lectures deals with forces in a single plane, and concerns chiefly the calculation of tension, compression and shearing stresses in frame structures and solid beams. It also deals with the consideration of problems relating to friction.

#### 2 *Dynamics* —T R Loudon

Departments 1, 2, 3, 6, 7, 8, I Year, 2 hours per week, both terms

This course of lectures deals with bodies having motion of translation in one plane, also with relative motion, momentum, work and energy.

Text Book —Tutorial Dynamics—Briggs and Bryan.

#### 3 *Dynamics of Rotation* —W I Loudon

Departments 1, 2, 3, 7, 8, II Year, 1 hour per week, both terms

This course covers angular motion, including moments of inertia, simple harmonic motion, the pendulum, centres of mass, suspension and percussion, the simple theory of the fly-wheel and the governor.

Text Book —Dynamics of Rotation—Loudon

4 *Mechanics of Materials* —P Gillespie

Departments 1, 2, 3, 6, 7, 8, II Year, 2 hours per week, both terms  
 In this course the strength and elasticity of materials are mathematically treated. The stresses in such elements of structures as the tie rod, the beam, the strut and the member subjected to shear are investigated and the elementary principles of design established. In the lecture and drafting rooms through numerous problems involving the design of simple beams, columns, riveted connections, etc., these principles are exemplified. The work includes also the discussion of eccentric loading, suddenly applied loads and repeated stresses.

Reference Book —*Mechanics of Materials*—Merriman

5 *Mechanics of Materials* —T R Loudon

Department 4, II Year, 2 hours per week, both terms

This course deals with the mathematical consideration of stress and elasticity. Among the problems taken up are the consideration of riveted joints, theory of simple and continuous beams, the theory of columns and simple column footings.

6 *Theory of Structures* —C R Young

Department 1, III Year, 2 hours per week, both terms

The work of the first term comprises a thorough discussion of combined stresses, columns, restrained, continuous and trussed beams, multiple beam and box girders, and plate girders. A number of designs of structures and structural details are worked out in the class and drafting rooms.

The second term is given chiefly to the design of a riveted truss highway span and a riveted truss railway span, the complete designs being made in the lecture and drafting rooms.

Text Books —*Modern Framed Structures, Part III*—Johnson, Bryan and Turneaure, *Structural Problems*—Young, Carnegie Pocket Companion, Cambria Steel

7 *Theory of Structures* —C R Young

Departments 2, 3, 6, III Year, 2 hours per week, first term

The work is practically the same as that for Department I in the first term.

8 *Structural Design* —T R Loudon

Department 4, III Year, 2 hours per week, both terms

During the first term, the economics of the design of floor systems in timber and structural steel are discussed. The design of masonry piers, structural steel and timber columns is also gone into in the first term.

The second term is taken up in the discussion of the design of roof trusses and plate girders.

9 *Mechanics of Materials* —P Gillespie

Departments 1, 2, 3, III Year, 3 hours per week, one term

This laboratory course is intended to give the student an introduction to the experimental study of the strength and elasticity of materials. It is intended that he shall acquire some familiarity with the construction and operation of testing machines and with the properties of the ordinary building materials.

Reference —Laboratory Instruction Sheets, Department of Civil Engineering and Applied Mechanics, U of T, 1922

10 *Stress Graphics* —T R Loudon

Department 1, III Year, one hour per week, both terms

This course of lectures deals mainly with graphic methods of solving stresses in framed structures. The construction of Shearing Force diagrams, Bending Moment diagrams and Influence Lines is also dealt with.

Text Book —Graphic Analysis—Wolfe

10(a) *Compound Stress* —T R Loudon

Department 3, III Year, one hour per week, first term

This course deals mainly with the discussion of methods determining the stress conditions in bodies subjected to compound stress. Both analytical and graphical methods of analysis are discussed.

11 *Cements and Concrete* —P Gillespie

Departments 1, 8, III Year, one hour per week, second term

The manufacture, testing and use of Portland cement and the fundamentals of the theory of reinforced concrete are discussed in this course of lectures.

12 *Theory of Structures* —C R Young

Departments 1c, 1d, 1e, IV Year, 2 hours per week, both terms

The work comprised in this course of lectures concerns swing bridges, arches, suspension bridges, cantilever bridges, deflections, and secondary stresses. Problems based on the lectures are worked out in the drafting rooms.

Reference Books —Modern Framed Structures, Part II—Johnson, Bryan and Turneaure

13 *Mechanics of Materials* —P Gillespie

Departments 1, 3, IV Year, a laboratory course of 3 hours per week one term and 6 hours per week the other term

This course of experiments is intended to give the student practice in investigating the elastic and physical properties of iron, steel, concrete, timber, etc., and in the use of instruments of precision designed for that purpose.

Reference Book —Materials of Construction—Johnson

14. *Foundations, Retaining Walls and Dams* —P Gillespie, W J Smither  
Department 1, IV Year, Department 3, IV Year, Option (b), 1 hour  
per week, both terms

This course of lectures is devoted to the design of the structures mentioned. Preparatory to the discussion of the practical aspects of the subjects, and in order to gain familiarity with the fundamental principles involved, a part of the first term is given over to the consideration of the theory of compound stress. The most approved forms of construction of retaining walls, footings, abutments, piers and dams are then described, and typical designs are worked out in the class and drafting rooms.

Some attention is also given to the principles of formula charting.

Text Books and Books of Reference —Retaining Walls for Earth—M A Howe, Walls, Bins and Grain Elevators—M S Ketchum, A Treatise on Masonry Construction—I O Baker, Design and Construction of Dams—E Wegmann

- 15 *Reinforced Concrete* —P Gillespie  
Department 1, IV Year, Department 3, IV Year, Option (b), 1 hour  
per week, both terms

The theory of the strength of reinforced concrete elements including the beam, the slab, the T-beam, the column and the footing, is continued in this course.

The analysis of the monolithic arch by the elastic theory is discussed, and the student is required in the drafting room to apply his knowledge to the design of simple structures.

Reference books —Principles of Reinforced Concrete Construction—Turneaure and Maurer, Reinforced Concrete Construction, Vol I—Hool

- 16 *Structural Design* —T R Loudon  
Department 4, IV Year, 1 hour per week, both terms

During this course of lectures, the economics of the design of complete buildings in timber, reinforced concrete and steel are discussed. This course of lectures is supplemented by the actual designing of buildings in the drafting room.

- 17 *Structural Design* —C R Young, W J Smither  
Department 1<sub>a</sub>, 1<sub>d</sub>, IV Year, 1 hour per week, both terms  
Department 1<sub>b</sub> and 3, IV Year, 1 hour per week, first term

This course of lectures is devoted to the problems connected with the structural design of buildings of timber, steel and reinforced concrete. The various structural elements such as the floors, columns, footings, walls and wind bracing, are fully discussed, and portions of typical buildings are designed in the class and drafting rooms.

Text Books —Handbook of Building Construction—Hool and Johnson, Architects' and Builders' Handbook—Kidder—Nolan

- 18 *Structural Design* —C R Young, W J Smither  
Departments 1<sub>a</sub>, 1<sub>d</sub>, and 3, IV Year, 1 hour per week, first term  
Consideration is given in this course to the various types of mill buildings, to the conditions governing the choice and to the details of construction in different materials. Designs of portions of mill buildings are worked out in the class and drafting rooms.  
Text Books —Steel Mill Buildings—Ketchum Mill Buildings—Tyrrell,
19. *Miscellaneous Structures* —W J Smither  
Department 1, IV Year, 1 hour per week, second term  
In this course of lectures the application of theoretical principles to the design of a variety of structures is made. Among those structures discussed are transmission line towers, elevated tanks and their supporting towers, standpipes, large pressure pipes, sewers, culverts, small highway bridges, sub-surface tanks and tall chimneys. Whenever possible the lecture work is followed up by designs in the drafting room.
- 20 *Railway Structures* —C R Young  
Department 1<sub>a</sub>, IV Year, 1 hour per week, first term  
A course of lectures with exercises covering alternative bridge layouts with comparative estimates of costs, temporary and permanent trestles, tunnels, tunnels vs bridges, buildings, turntables, snow sheds and shelters.

## ARCHITECTURE

25. *History of Architecture* —H H Madill.  
Department 4, I Year, 1 hour per week, both terms  
In this course the development of architecture is treated very briefly and in an elementary manner, from the Pyramids of Egypt to the present day.
- 26 *History of Architecture* —  
Department 4, II Year, 1 hour per week, both terms  
The Antique, Renaissance and the Modern styles are dealt with more fully than is possible in the elementary history.
- 27 *History of Architecture* —A W McConnell  
Department 4, III Year, 1 hour per week, both terms  
In this course the work of the previous year is continued, with special attention given to the development of buildings in planning and detail.
- 28 *Elements of Architecture* —H H Madill  
Department 4, I Year, 1 hour per week, both terms  
Lectures on the Five Orders of Architecture, their affiliated forms and the other elements used in design. Simple problems in elementary design involving the use of the orders and other elements are set from time to time.



29 *History of Ornament* —H H Madill

Department 4, II Year, 1 hour per week, both terms

In this course the development of Ornament is traced from the beginning through Egyptian, Assyrian, Grecian, Roman, Byzantine, Romanesque, Gothic and Renaissance styles. An attempt is made to analyze ornament of the best periods and to systematize the principles followed in form and colour. The development and types of mouldings are also studied.

30 *History of Fine Art* —C W Jefferys, Frederick Coates

Department 4, III Year, 1 hour per week, both terms

In the first term the course consists of an outline of the history and development of painting and of the minor pictorial arts from the earliest time until the present day.

In the second term an outline of the history and development of the different eras of sculpture ranging from the primitive to the present day, is given.

31 *Architectural Design* —A W McConnell

Department 4, II Year, 1 hour per week, both terms

This course is given by means of individual instruction in the classroom by criticisms of the solutions of different problems set during the year and by a series of lectures. It is in this course that the student begins the serious study of design, continued practice in architectural drawing and rendering affords the training necessary to make the student a proficient draughtsman.

32 *Architectural Design* —A W McConnell

Department 4, III Year

Theory and practice of Design

This course is given by individual instruction in the studio and by lectures. The greater part of the course is devoted to problems in design, and forms a continuation of the course given in the preceding year.

33 *Architectural Design* —A W McConnell

Department 4, IV Year

The entire course is devoted to advanced academic training in designing the more monumental classes of buildings.

34 *Architectural Design* —A W McConnell

Department 4, IV Year, Architectural Engineering Option

A short course of lectures and studio work referring especially to the artistic side of the design of commercial buildings.

35 *Freehand Drawing and Water Colour Painting* —C W Jefferys

Department 4, I Year, 3 hours per week, both terms

Drawing from still life objects. Primary free hand perspective. Primary pencil, charcoal, and pen and ink rendering.

- 35a Department 4, II Year, 3 hours per week, both terms  
 Drawing and monochrome painting from still life  
 Drawing from the cast  
 Pencil, pen and ink, and monochrome rendering  
 Primary water colour  
 Drawing from landscape and natural objects
- 35b Department 4, III Year, 3 hours per week, both terms  
 Drawing from the cast  
 Water colour from still life Water colour rendering  
 Drawing from landscape and natural objects  
 Students who are sufficiently advanced are admitted to the **Fourth Year Life Drawing Class**
- 35c Department 4, IV Year, 3 hours per week, both terms  
 Water colour from still life and from landscape  
 Drawing from life  
 Water colour rendering
- 36 *Modelling* —Frederick Coates  
 Department 4, I Year, 2 hours per week, both terms  
 The Orders Synopsis of styles
- 36a Department 4, II Year, 2 hours per week, both terms  
 Problems in figures and in relation to architecture
- 36b Department 4, III Year, 2 hours per week, both terms  
 Styles continued  
 Problems, combination of figure, ornament and architecture and their relative values
- 36c Department 4, IV Year, 2 hours per week, both terms  
 Modelling from life  
 Anatomy  
 Composition of groups
- 37 *Building Measurement* —C H C Wright  
 Department 4, I Year, 1 hour per week, both terms  
 In this course of lectures the principles of measurements and mensuration with special reference to buildings will be discussed With this is combined practice in measurements of existing buildings, quantities, etc
- 38 *Building Materials* —C H C Wright  
 Department 4, III Year, 2 hours per week, both terms  
 The structural and aesthetic value of the various building materials
- 39 *Sanitary Science* —H H Madill  
 Department 4, IV Year, 1 hour per week, both terms  
 Modern plumbing, its design and installation, drainage, sewerage disposal and water supply
- 40 *Heating and Ventilating* —C H C Wright  
 Department 4, IV Year, 1 hour per week, both terms  
 The design of different systems, where they should be used, heating specifications, etc

## ASSAYING, MINING AND ORE DRESSING

The work in Mining is directed more to the development of the proper attitude of mind towards mining problems than to the teaching of actual mining methods

The teaching of Assaying has a two-fold function. The first is to give the student a working knowledge of the practice of the art, so that he can earn money as an assayer on graduation and use this as a stepping-stone to other positions. The second is to use the assaying laboratories for the training of the students in certain important phases of Engineering methods. The size of the apparatus, the completeness of the processes in short intervals of time, the extreme accuracy of results when so desired, the relation of the extent of error to time and method, the similarity of the academic laboratory to the field laboratory, all these permit an unrivalled opportunity for driving home much broad Engineering philosophy. The assaying processes and apparatus lend themselves peculiarly well for the development of a proper perspective in regard to errors and accuracy in measurements.

The study of Ore Dressing, when accompanied by laboratory work in a well equipped ore dressing laboratory, is one of the most important of the Mining Engineering subjects. Not only is the mechanical treatment of ores a very important branch of Mining Engineering, but the mental processes involved in a study of the fundamental principles underlying the art and the compromise necessary for field practice form one of the best fields for the development of Engineering philosophy. From these points of view the ore dressing laboratory is exceptionally well equipped.

45 *Assaying* —J. T. King

Departments 2 and 8, III Year, 1 hour per week, first term

A first course of lectures on the theory of fire assaying. Emphasis is laid not only on the chemical and metallurgical principles involved, but upon the errors inherent in operators as well as in methods.

Text Book—"Fulton" Manual of Fire Assaying

46 *Assaying* —J. T. King

Departments 2 and 8, III Year, 3 hours per week, both terms

A laboratory course in the determination of the precious metals in ores, milling and metallurgical products. Scorification and crucible assays of ores and products, pure and impure, fluxes, slags and solutions. Buckboard practice, ores with metallics. Copper and lead by electrolysis. Students are expected to do their later assays with despatch and a reasonable degree of accuracy. Neatness of work is required.

- 47 *Assaying* —J T King  
Departments 2 and 8, IV Year, 1 hour lecture per week, second term  
A continuation of course 45 Complex ores Combination assays.  
The sampling and assay of bullion The Platinum group metals.  
Checks and corrections
48. *Assaying* —J T King  
Departments 2 and 8, IV Year, 3 hours per week, second term  
An advanced laboratory course in which some of the methods of  
course 47 are used
- 49 *Assaying* —J T King  
Department 6, III Year, 3 hours per week, one term  
An introductory laboratory course for Chemical Engineers Some  
lecture instruction is given An abbreviation of courses 45  
and 46
- 50 *Mining* —H E T Haultain and F C Dyer  
Department 2, I Year, 3 hours per week, second term  
A laboratory course, including some lectures, being an introduction  
to certain mining and milling machinery and methods
- 51 *Mining* —H E T Haultain  
Department 2, II Year and Department 8, III Year, 1 hour per  
week, first term  
An introductory course of lectures
- 52 *Mining* —H E T Haultain  
Department 8, III Year, 1 hour per week, second term  
An extension of No 51
- 53 *Mining* —F C Dyer  
Department 2, II Year, 3 hours per week, one term  
Continuation of No 50 Rock drills, sampling methods, use of  
explosives
- 54 *Mining* —H E T Haultain and F C Dyer  
Department 2, III Year, 2 hours per week, second term  
Principles of mining
- 55 *Mining* —H E T Haultain  
Department 2, IV Year, 1 hour per week, both terms  
Special problems, estimates, reports
- 56 *Mine Cost Keeping and Management* —H. E T Haultain  
Department 2, IV Year, 1 hour per week, both terms  
One of the fundamental features that must not be lost sight of by  
the Mining Engineer is, that his work is designed primarily for  
purposes of financial profit This course of lectures deals with

details from this point of view. The total cost of a ton of ore requiring as it does an understanding of the problems of amortization, is first dealt with in a broad way. Then are considered various problems of cost keeping, leading on to problems of time and motion study which are essential to the development of the fine points of the art in any particular mining problem. The latter part of the course deals with problems of management, the relations of members of the staff to each other, and the relations of the staff to labour.

- 58 *Ore Dressing* —H. E. T. Haultain and F. C. Dyer  
Departments 2 and 8, III Year, 1 hour per week, both terms  
The general principles of Ore dressing
- 59 *Ore Dressing* —F. C. Dyer  
Departments 2 and 8, III Year, 3 hours per week, both terms  
Work with crushing machinery, principles of crushing and grading  
screen analyses, concentration with gravity separation apparatus,  
etc
- 60 *Ore Dressing* —H. E. T. Haultain and F. C. Dyer  
Departments 2 and 8, IV Year, 1 hour per week, both terms  
No 58 continued, study of flow sheets and special problems
- 61 *Ore Dressing* —F. C. Dyer  
Departments 2 and 8, IV Year, 6 continuous hours per week, one  
term  
Advanced work with ore dressing appliances, ore testing and check  
mill runs
- 62 *Ore Dressing* —F. C. Dyer  
Department 6k, IV Year, 1 hour per week, both terms  
General principles of ore dressing
- 63 *Ore Dressing* —F. C. Dyer  
Department 6k, IV Year, 1 period of 6 hours per week, second term  
Principles of sampling, crushing and grading, screen analyses, con-  
centration with gravity separation apparatus, flotation, ore  
testing, etc
- 64 *Physics of Ore Dressing* —H. E. T. Haultain and F. C. Dyer.  
Department 2, III Year, 1 hour per week, both terms  
Ore dressing methods involve a study of the laws governing the  
phenomena of surface tension, capillarity and colloidal solutions,  
in addition to those of hydrostatics and certain phases of hy-  
draulics. This is embodied in a special course of lectures in  
conjunction with laboratory work in the Ore dressing laboratory.

- 65 *Theory of Measurement* —H E T Haultain  
 Department 2, II Year, 1 hour per week, one term  
 This title is not an entirely suitable one for this course of lectures because it is generally applied to a study of the philosophy of extremely accurate measurements. The Mining Engineer has to continually make satisfactory use of measurements with a wide range of inaccuracy. This course of lectures deals with the philosophy underlying the causes of these errors and the practical application of such approximations. The opportunity is taken in these lectures to deal with the subject of illustrating measurements by graphs.
- 66 *Introductory Research* —H E T Haultain and F. C Dyer  
 Department 2, III Year, 2 hours per week, second term  
 This is a laboratory course including some lectures and is a preparation for the thesis of the fourth year.
- 67 *Thesis*  
 Department 2, IV Year, 7 hours per week, first term, 10 hours per week, second term, in continuous periods  
 Thesis in this department consists mainly in reports on original work done in the laboratories. In the III year the subject "Introductory Research" paves the way for the thesis. During the month of October the student decides on the subject of his thesis in consultation with his professors. After this is decided the student uses his own initiative in the development of his work.  
 The thesis is divided into three parts. The first part, which is handed in during the first week in November, contains the title, a statement of what the title is meant to convey and an outline of the work that is proposed to be done. The second part is handed in during the first week of January and contains a report of progress to date and enables the professor in charge to keep in closer touch with the work. The third and final part is handed in a week before the examinations and is a report of progress to date with final conclusions. The three parts combined constitute the thesis.
- 68 *Vacation Letters*  
 Department 2, III Year and IV Year  
 These are a series of letters written during the summer vacation, dealing with various aspects of a mining engineer's work. They are intended to direct and help the student's powers of observation, analysis and criticism as well as being exercises in the art of lucid technical expression. See page 29 for instructions.
- 69 *Vacation Work*  
 Department 2, II Year  
 See page 29 for detailed instructions.

## ASTRONOMY AND GEODESY

71 *Astronomy, Elementary* —C A Chant

Department 1, II Year, 1 hour per week, both terms

A course in descriptive Astronomy, explaining the ordinary astronomical terms, and describing the various celestial bodies and their motions. In the evenings opportunity will be given for identifying the stars and for observing with telescopes

Text book —Manual of Astronomy—C A Young

72. *Astronomy and Geodesy* —L B Stewart

Department 1, III Year, 2 hours per week

The course of lectures deals with the determination of time, latitude, longitude and azimuth, by methods adapted to the use of the surveyor's transit and the sextant. It is designed to fulfil the requirements of the final examinations for Ontario and Dominion Land Surveyors

In Geodesy an account is given of the principles and methods of a secondary triangulation survey, also of the principles involved in the North-West system of survey

Text books—Practical Astronomy as applied to Geodesy and Navigation—Doolittle, Nautical Almanac, 1925

73 *Field Work* —L B Stewart, S R Crerar

Department 1, III Year, about 2 hours per week, first term

The practical work in this subject comprises observations in the field with the transit and sextant for the determination of time, latitude and azimuth by the methods described in the lectures

74 *Astronomy (Advanced)* —L B Stewart

Department 1, IV Year, 2 hours per week

The lecture course in this subject comprises the theory and adjustment of the instruments used in connection with a geodetic survey, the methods of taking and reducing observations for time, longitude, latitude, and azimuth, with the precision required on such a survey, and other matters relating to these subjects

75 *Geodesy and Metrology* —L B Stewart

Department 1, IV Year, 2 hours per week

The lecture course includes a description of the methods of measuring base lines and the angles of a triangulation, the geometry of the spheroid with applications to geodetic problems, the computation of geodetic positions, the solution of large triangles on the earth's surface, and the adjustment of a triangulation, trigonometric and precise spirit levelling, the determination of the figure of the earth by arc measurements, and by the pendulum; the theory of map projections, etc

76 *Astronomy, Geodesy and Metrology* —L. B. Stewart

Department 1, IV Year, about 23 hours per week

The practical work in the above subjects includes the observation of meridian transits for time and longitude determinations, and of prime vertical transits for latitude, with the astronomical transit instrument, the observation of meridian zenith distances of stars, and of azimuths at elongation for latitude, with the alt-azimuth, theodolite observations for azimuth, observations for latitude with the zenith telescope, the investigation of the constants of the instruments used, and the reduction of all observations, the measurement of a base line with the steel tape and with invar wires, and the determination of the constants of the tape, the measurement of the angles of a triangulation and the adjustment of the angles of network of triangles, etc. A portion of this work will be taken at the Summer Survey Camp (See page 31)

## BIOLOGY

80 *Elementary Biology* —J. H. Faull

Department 6, I Year, 3 hours per week, each term

An elementary laboratory course on the nature and identification of plant and animal tissues and products, with microscope practice

81 *Elementary Biology* —J. W. MacArthur

Department 1b, IV Year

A special Course of Laboratory work and demonstrations in General Biology, five hours per week, first term

82 *Hygiene and Bacteriology* —D. T. Fraser and R. R. McClenahan

Departments 1b and 6, IV Year

(1) This is a course of twenty-five lectures, dealing with the principles of Hygiene and Sanitary Science and including a discussion of the facts in Bacteriology which are necessary for a proper understanding of Hygiene and Sanitary Science. The particular phases of the subject which are of importance from the standpoint of Sanitary Engineering are dealt with

(2) This is a laboratory course of six hours per week, second term, dealing especially with the Bacteriology of water, milk and sewage

## CHEMISTRY

85 *Elementary Chemistry* —E. G. R. Ardagh

Departments 1, 2, 3, 6, 7, 8, I Year, 2 hours per week, first term, 1 hour per week, second term

A lecture course in elementary chemistry dealing with the non-metals, with experimental illustrations



- 86 *Inorganic Chemistry* —L J Rogers**  
Department 6, I Year, 10 hours per week, both terms  
A laboratory course of quantitative experiments illustrating the use of the sensitive balance, and confirming the fundamental laws of chemistry, qualitative inorganic analysis, quantitative analysis of pure salts, inorganic preparations, molar weight determinations  
Text books —Analytical Chemistry, Vol II—Treadwell Hall, Qualitative Chemical Analysis—A A Noyes
- 87A *Inorganic Chemistry A* —E G R Ardagh**  
Departments 1, 2, 3, 6, 7 and 8, II Year, 1 hour per week, first term  
A continuation of Course 85 dealing especially with the metals
- 87B *Inorganic Chemistry B* —E G R Ardagh**  
Departments 2, 6 and 8, II Year, 1 hour per week, second term  
A lecture course on theoretical chemistry with special reference to the metals, a continuation of Course 85  
Text book — Smith's College Chemistry—Kendall
- 88 *Analytical Chemistry* —L J Rogers**  
Departments 2, 6 and 8, III Year, 1 hour per week, both terms  
A lecture course on the principles of chemical analysis, select gravimetric and volumetric methods, technical analysis
- 89 *Analytical Chemistry* —E G R Ardagh**  
Departments 1, 2, 3 and 7, II Year, 3 hours per week  
Laboratory practice in elementary qualitative and quantitative analysis  
Text book —A Smaller Chemical Analysis—Newth
- 90 *Analytical Chemistry* —J W Bain**  
Department 2, II Year, 3 hours per week, both terms  
A laboratory course in the gravimetric determination of metals and acids, with elementary volumetric analysis  
Text book —A Manual of Chemical Analysis, Qualitative and Quantitative—Newth
- 91. *Analytical Chemistry* —L J Rogers**  
Department 8, II Year, about 12 hours per week  
A laboratory course comprising gravimetric and volumetric methods, acidimetry and alkalimetry  
Text books —Analytical Chemistry, Vol II—Treadwell Hall, Qualitative Chemical Analysis—A A Noyes
- 92 *Analytical Chemistry* —L J Rogers**  
Department 6, II Year, 180 hours  
A laboratory course in quantitative chemical analysis, inorganic preparations  
Text book —Analytical Chemistry, Vol II—Treadwell Hall

- 93 *Engineering Chemistry* —J W Bain  
Departments 1, 3, 6 and 7, II Year, 1 hour per week, first term  
A lecture course consisting of a study of the industrial production and application of heat and light, and of the chemistry of fuel and the products of combustion
- 94 *Industrial Chemistry* —J W Bain  
Department 6, II Year, 1 hour per week, both terms  
A lecture course on the manufacture of salts, acids, alkalies and inorganic chemicals
- 95 *Organic Chemistry* —M C Boswell  
Departments 1, 2, 3 and 7, II Year, 1 hour per week, second term  
A lecture course in elementary organic chemistry
- 96 *Organic Chemistry* —M C Boswell  
Department 6, II Year, 2 hours per week, both terms  
A lecture course dealing with the aliphatic compounds
- 97 *Organic Chemistry* —M C Boswell  
Department 6, II Year, 60 hours  
A laboratory course in organic preparations
- 98 *Physical Chemistry* —F B Kenrick  
Departments 6, II Year, 2 hours per week, both terms  
A course of lectures on the elements of chemical mechanics, and the theory of solutions
- 99 *Analytical Chemistry* —L J Rogers  
Department 2, III Year, 3 hours per week, first term, 6 hours per week, second term  
A laboratory course on the technical analysis of ores and furnace products
- 100 *Industrial Chemistry* —E G R Ardagh  
Department 6, III Year, about 10 hours per week  
A laboratory course in industrial chemistry
- 101 *Analytical Chemistry and Phase Rule* —L J Rogers, J T Burt-Gerrans  
Department 8, III Year, about 6 hours per week  
A laboratory course in analysis and phase rule
- 102 *Engineering Chemistry* —J W Bain, E G R Ardagh  
Departments 1, 2, 3, 6, 7 and 8, III Year, 1 hour per week, both terms  
A lecture course on the application of chemistry to engineering problems, air, water, sewage, the materials of construction explosives, etc

- 103 *Industrial Chemistry* —E G R Ardagh  
Department 6, III Year, 1 hour per week, both terms  
A lecture course on petroleum and its products, coal tar and its products, fats, oils, soap, sugar, starch, and gums, fermentation industries, etc
- 104 *Chemical Plant* —J W Bain  
Department 6, III Year, 1 hour per week, both terms  
A lecture course on the machinery and plant used in chemical manufacturing
- 105 *Organic Chemistry* —M C Boswell  
Department 6, III Year, 2 hours per week, both terms  
A lecture course on the aromatic series
- 106 *Organic Chemistry* —M C Boswell  
Department 6, III Year, 85 hours  
A laboratory course in organic preparations in the aromatic series.
- 107 *Electrochemistry* —W L Miller  
Departments 6, 7 and 8, III Year, Department 2, IV Year, 2 hours per week, first term  
A lecture course on elementary electrochemistry, illustrated by experiments
- 108 *Electrochemistry* —W L Miller and J T Burt-Gerrans  
Departments 6, 7 and 8, III Year, 3 hours per week, first term  
Department 2, IV Year  
A laboratory course in quantitative measurements to accompany Course 107
- 109 *Inorganic Chemistry* —J W Bain  
Department 6, IV Year, 2 hours per week, both terms  
A lecture course on chemical theory
- 110 *Organic Chemistry* —M C Boswell  
Department 6, IV Year, 1 hour per week, both terms  
A lecture course on advanced organic chemistry
- 111 *Organic Chemistry* —M C Boswell  
Department 6, IV Year  
A laboratory course in advanced organic chemistry
- 112 *Industrial Chemistry* —J W Bain  
Department 6, IV Year, 1 hour per week, both terms  
A lecture course on selected subjects in chemical technology
- 113 *Industrial Chemistry* —J W Bain, E G R Ardagh, M C Boswell.  
Department 6, IV Year  
A laboratory course in industrial problems

- 114 *Electrochemistry* —J T Burt-Gerrans  
 Department 6, 7 and 8, IV Year, 2 hours per week, both terms  
 An advanced lecture course on the theory of solutions and electrolysis, and the application to the practice of electro-deposition and electrolytic refining of metals. The course also includes lectures on the electric furnace with special consideration of efficiency  
 Text books —Electrometallurgy—Dorchers, Electrochemistry—Le Blanc, Electrochemistry—Luepke, The Electric Furnace—Stansfield
- 115 *Electrochemistry* —W L. Miller and J T Burt-Gerrans  
 Departments 6, 7 and 8, IV Year  
 A laboratory course accompanying Course 114
- 116 *Sanitary and Forensic Chemistry* —J W Bain  
 Department 6, IV Year, 1 hour per week, both terms  
 A lecture course on the composition and examination of air, water and food, poisons and their detection, with accompanying laboratory course
- 117 *Sanitary Chemistry* —E G R Ardagh  
 Department 1b, IV Year  
 A lecture and laboratory course on water supply, sewage disposal ventilation, etc

## ECONOMICS AND BUSINESS ADMINISTRATION

- 121 *Business* —W S Ferguson  
 Departments 1, 2, 3, 6, 7, 8, I Year, 1 hour per week, second term  
 A lecture course on the principles underlying accounting and general business methods of a simple nature in order to enable the student to understand simple financial reports
- 122 *Technical English* —S G Bennett  
 (a) All Departments, I Year, 1 hour per week, both terms  
 A lecture course on the expression of ideas and the compilation and writing of different types of engineering reports, technical exposition, the derivation and use of technical terms, the necessity of accurate expression in professional writing, terminology, the use of graphic methods for presenting facts, abbreviations, numbers, symbols  
 (b) Department 4, II Year, 1 hour per week, both terms  
 This course of lectures includes a discourse on the literature which refers either directly or indirectly to architecture and the arts. Books are reviewed and discussed in round-table talks and essays prepared for practice in expression. The preparation of specifications and contracts for the execution of construction is continued from the course in the first year, specializing in architectural types

- 123 *Economics and Finance*—C R Fay  
All Departments, II Year, 1 hour per week, both terms  
An introduction to the study of Economics The course will deal in an elementary fashion with the following  
(1) Scope and Method of Economics  
(2) Theory of Value and Distribution  
(3) Structure of Industry and Social Conditions  
(4) Money, Banking and Public Finance  
Text Book —Economics for the General Reader—Clay
- 124 *Commercial Law* —A R Clute  
All departments, III Year, 1 hour per week, both terms General Principles of the Law of Contracts, Principal and Agent, Partnership and Limited Companies (with special reference to the Companies Acts) General view of the following —Negotiable Instruments, Sale of Goods, Bills of Sale and Chattel Mortgages, Suretyship and Guarantee  
Text-Book —Stephens' Elements of Mercantile Law (5th Ed , 1911 )
- 125 *Engineering Economics* —C R Young  
Departments 1, 3, 7, 8, IV Year, 1 hour per week, second term  
A series of lectures on the principles by which the economic practicability of a project is judged and the comparison of competing proposals is made Consideration is given to first cost and annual cost, methods of estimating, fixed charges and operating expenses, valuation and appraisals Special attention is given to depreciation and the methods of providing for it, as well as to its relation to amortization Typical numerical problems are discussed and solved  
Text Books —Engineering Economics—Fish; Financial Engineering—Goldman
- 126 *Engineering Law* —R E Laidlaw  
Department 1, IV Year, 1 hour per week, first term.  
A course of lectures, co-ordinating Engineering practice and Law as contained in various legislation such as The Railway Act, Municipal Act, Public Health Act, Arbitration Act, Workmen's Compensation Act, Patents, Copyrights, etc
- 127 *Contracts and Specifications* —C R Young  
Departments 1, 4, 8, IV Year, 1 hour per week, second term  
This course of lectures deals with the fundamental principles of contract and specification writing The critical examination of typical specifications and agreements by the class, forms an essential feature of the instruction  
Text Books —Engineering Contracts and Specifications—Johnson, Elements of Specification Writing—Kirby

128 *Management* —C R Young

Department 1, IV Year, 1 hour per week, first term

A series of lectures dealing with the fundamental principles upon which management is based. The possibilities of effective management are indicated and its basis is shown to exist in suitable organization, adequate equipment and smooth administration. Consideration is given to such matters as selection of personnel, essentials of effective organization for enterprises of widely different character and the art of directing a force so as to attain a desired end in an expeditious and effective manner.

Text Books —Construction Cost Keeping and Management—Gillette and Dana, Principles of Industrial Organization—Kimball, Administration of Industrial Enterprises—Jones

129 *Plant Management* —G A Guess

Department 8, IV Year, 1 hour per week, first term

A course of twelve lectures dealing with some phases of labour, plant organization, smelter contracts and markets

130 *Industrial Management* —E A Allcut

Departments 3 (Option c), 6 and 7, IV Year, 1 lecture per week, both terms

This course includes a study of industrial organization, location, arrangement, construction and equipment of industrial plants for efficiency and economy, process routing, scheduling work, reports, methods of superintending, employment, systems of compensating labour and systems of distributing indirect expenses

131 *Railway Economics* —W M Treadgold

Department 1, Option e, IV Year, 2 hours per week, both terms

The object of this course is to make the student acquainted with the general principle of railroad engineering and the following branches of the subject will be discussed—economic theory of location, train resistance, effect of grade, distance and curvature, rise and fall, maintenance of way, yards and terminals, tunnels and street railway practice

132 *Municipal Administration* —P Gillespie, A T Laing

Department 1, Option b, IV Year, 1 hour per week, both terms

A course of lectures dealing with civics, local improvement laws and assessments, building codes, fire control, transportation, public utilities, etc

133 *Public Speaking* —W H Greaves

Department 1, III Year, 1 hour per week, first term

A course on the principles of public speaking and the means of expression accompanied by practical application and training in actual speaking

## ELECTRICITY

135 *Electricity* —H W Price

Departments 1, 2, 3, 6, 7 and 8, I Year, 2 hours per week, both terms  
A course of lectures on basic principles relating to electric circuits, magnetic circuits, instruments and apparatus in general, distribution of electrical energy, etc., illustrated largely from commercial apparatus. The point of view of this work is quantitative rather than descriptive, for it is believed that men who can solve engineering problems are most likely to grasp underlying principles.

136 *Electricity* —W S Guest

Departments 3, 6, 7 and 8, II Year, 2 hours per week, both terms  
Deals with the theory of electrical measurements, and detailed study of various methods applicable under different conditions in engineering practice to the measurement of resistance, current, potential difference, power and energy, calibration of commercial measuring instruments. The effect of choice of conditions of measurement on the accuracy of the result is considered.

137 *Electrical Laboratory* —W S Guest

Departments 3, 6, 7 and 8, II Year, 3 hours per week, both terms  
This laboratory course is closely associated with the lecture course 136 on electricity for the second year. The more important and useful methods of testing generators and circuits for electromotive force, resistance, current, grounds, etc., are practiced, often under conditions such as occur in practice. The work also includes methods of calibration of measuring instruments for voltage, current, power and energy, and certain studies of properties of incandescent lamps.

138 *Magnetism and Electricity* —A R Zimmer

Department 3, III Year, 2 hours per week, first term  
Department 7, III Year, 2 hours per week, first term, 1 hour per week, second term  
A course of lectures on theory of magnetism and magnetic circuits, theory of direct-current generators, motors, etc.

139 *Alternating Current* —A R Zimmer

Department 3, III Year, 1 hour per week, both terms  
Department 7, III Year, 1 hour per week, first term, 2 hours per week, second term  
A first course of lectures on alternating current, covering principles of measurement and leading to the analytical and graphical treatment of the simpler problems relative to alternating-current circuits and machinery.

140 *Electrical Laboratory* —A R Zimmer

Department 3, III Year, 3 hours per week, Department 7, III Year, 6 hours per week

This laboratory course is intended to afford the student an opportunity to become familiar with principles involved in continuous-current shunt, series and compound-wound generators and motors, and, to some extent, alternating-current circuits and machinery. Other sections of the work deal with the magnetic properties of iron and steel, and study of iron losses in transformers and generators.

The course is arranged to stand in close relation to the lecture courses in the subjects of magnetism and electricity and alternating current (138, 139) for III Year, and to certain design work (141).

141 *Electrical Design* —H W Price

Department 7, III Year, 1 hour per week

A course of lectures dealing with design of electrical apparatus and machinery, accompanied by designs to be worked out in the design room.

142. *Electrical Design* —H W Price

Department 7, III Year, 3 hours per week

A design room is set apart for working out designs of electrical apparatus such as transformers, generators, motors, auxiliary apparatus, etc.

Special forms and notes are employed, arranged to suit the various studies. Certain models are provided to assist where necessary.

143 *Electricity* —H W Price

Departments 1, 2 and 8, III Year, 1 hour per week, both terms

A continuation of Course 135, First Year, adapted to the requirements of non-electrical students. It deals with problems on direct-current circuits and apparatus, magnetic circuits, power measurements, alternating current principles and machinery, transmission, power-plants, etc.

144 *Electrical Laboratory* —H W Price, A R Zimmer

(a) Department 1

III Year, 3 hours per week, first term

IV Year, Options d and e, 3 hours per week, second term

(b) Department 2

IV Year, 3 hours per week, first term

(c) Department 3

IV Year, 3 hours per week, second term

(d) Department 6

III Year, 3 hours per week, first term

(e) Department 8

III Year, 3 hours per week, both terms

These courses are arranged to suit the requirements of the departments concerned. The experiments are planned with the idea of affording a general knowledge of circuits, power measurements, direct-current and alternating current machinery and transmission of power.



- 145 *Applied Electricity* —(a) Symbolic and Graphical Methods,  
(b) Wave Form and Transmission Line—T R  
Rosebrugh

Department 7, IV Year, 2 hours per week

- (a) Complex quantities and their use in a.c. problems. Loci for current and voltage vectors for given limitations on circuit constants. Short line distribution circuit loci, approximate graphical theory of synchronous motor.
- (b) Non-sinusoidal alternating current waves, analysis of waves, forms of symmetry, three phase limitations, elimination of undesired harmonics, heating of rotary converters from combined a.c. and commutated d.c. waves, power, current, and voltage readings as influenced by wave form.
- Long distance transmission line, principles and calculation.
- Unequal lines in tandem and in parallel.

*Applied Electricity, (c) A.C. Machinery and Measurements* —H W Price

Department 7, IV Year, 2 hours per week

Polyphase alternating-current measurements of power, reactive power, apparent power, finding the indications of meters from given wiring diagrams, constructing wiring diagrams to obtain required meter indications. Potential and current transformers. Meter indications with distorted wave forms. Power transformers. Properties of alternators, induction motors of squirrel cage and wound-rotor types, synchronous motors, regulators, current-limiting reactors, arresters, and other general apparatus.

- 146 *Electrical Laboratory* —A R Zimmer

Department 7, IV Year, in connection with 145, 20 hours per week

This laboratory course involves a thorough study of principles and properties of single and polyphase circuits and apparatus. Both vector and analytical methods are applied to the solution of problems based on tests made on laboratory machines.

The work deals mainly with constant-voltage and constant-current transformers, single and polyphase alternators, synchronous motors, rotary converters, induction and single phase commutating motors, transmission line, etc. The work does not consist only of factory tests, but is designed to lead the student to apply theory to practice as illustrated in the apparatus under test, with a view to an exact understanding of methods and an appreciation of limitations under many conditions. Free use is made of the oscillograph as a necessary device for "seeing" conditions under investigation. The best commercial measuring instruments are available.

- 147 *Radiotelegraphy* —T R Rosebrugh  
 Department 7 Option 1, IV Year, in connection with 148, 2 hours per week  
 Natural oscillations of simple and simply coupled circuits Action of C W on circuits of the most general character Radiation of antennas Theory of modulation in radiotelephony Energy control and transformation by vacuum tubes
- 148 *Radiotelegraph Laboratory* —W C C Duncan  
 Department 7 Option 1, IV Year, in connection with 147, 9 hours per week  
 The work in this laboratory covers the principles and the technique of measurements at radio frequencies This includes measurements of wave length, resonance, coupled circuits, inductance, capacity, energy distribution, resistance, etc, at radio frequencies  
 Considerable work is also done with the three electrode vacuum tube and its uses in radio and audio-frequency circuits

## ENGINEERING DRAWING AND DESCRIPTIVE GEOMETRY

- 160 *Descriptive Geometry* —J R Cockburn  
 Departments 1, 2, 3, 6, 7 and 8, I Year, 1 hour per week, both terms  
 This course of lectures deals chiefly with the principles of orthographic and oblique projections and the application of such principles to the solutions of problems relating to straight lines and planes
- 161 *Descriptive Geometry* —J R Cockburn  
 Department 4, I Year, 1 hour per week, both terms  
 This course of lectures deals chiefly with the principles of orthographic and oblique projections and the application of such principles to the solution of problems relating to straight lines and planes, special reference being made to the determination of shades and shadows
- 162 *Descriptive Geometry* —J R Cockburn  
 Departments 1, 2, 3 and 7, II Year, 1 hour per week, both terms  
 This course of lectures is a continuation of the work taken in the first year with the following additions Problems relating to curved surfaces, principles of shades, shadows and perspective
- 163 *Descriptive Geometry* —J R Cockburn  
 Department 4, II Year, 1 hour per week, both terms  
 This course of lectures is a continuation of the work taken in the First Year with the addition of problems relating to curved surfaces, shades, shadows and perspective

- 164 *Descriptive Geometry* —J R Cockburn  
Department 1, III Year, 1 hour per week, first term  
This course of lectures deals with spherical projections, the principles of mapmaking, and the graphical solution of spherical triangles
- 165 *Descriptive Geometry* —J R Cockburn  
Department 4, III Year, 1 hour per week, first term  
Advanced work in shades, shadows and perspective
- 166 *Engineering Drawing* —J R Cockburn  
Departments 1, 2, 3, 7 and 8, I Year, 11 hours per week, first term, 18 hours per week, second term  
Copying from the flat, lettering, topography, graphical solution of problems in statics, problems in descriptive geometry, relating to both orthographic and oblique projections, the plotting of original surveys, measured drawings
- 167 *Architectural Drawing* —J R Cockburn, H H Madill  
Department 4, I Year, 9 hours per week first term, 18 hours per week, second term  
Copying from the flat, lettering, rendering the graphical solution of problems in statics, problems in descriptive geometry, relating to both orthographic and oblique projections, measured drawings  
Elements and principles of Architecture
- 168 *Engineering Drawing* —J R Cockburn.  
Department 6, I Year, 4 hours per week, both terms  
Copying from the flat, lettering, graphical solution of problems in statics, problems in descriptive geometry
- 169 *Engineering Drawing* —J R. Cockburn  
Departments 1 and 2, II Year Department 1,  $4\frac{1}{2}$  hours per week, first term,  $13\frac{1}{2}$  hours per week, second term Department 2, 3 hours per week first term, 12 hours per week, second term  
Colouring and shading as applied to both topographical and construction drawings, problems in descriptive geometry relating to solids bounded by curved surfaces, principles of shades, shadows and perspective, solution of problems in optics and strength of materials, measured drawings, elementary design
- 170 *Engineering Drawing* —J R Cockburn  
Departments 3 and 7, II Year, Department 3, 13 hours per week, first term, 11 hours per week second term, Department 7, 12 hours per week, both terms  
Coloring and shading as applied to construction drawings, problems in descriptive geometry relating to solids bounded by curved surfaces, principles of shades, shadows and perspective, solution of problems in optics, theory of mechanism and strength of materials, measured drawings, elementary design

- 171 *Architectural Drawing* —J R Cockburn, A Wellesley McConnell,  
H H Madill  
Department 4, II Year, 17 hours per week, both terms  
Exercises from the orders of architecture, principles of shades, shadows  
and perspective, elementary architectural design, problems in  
descriptive geometry relating to solids bound by curved surfaces,  
solution of problems in optics and strength of materials, measured  
drawings
- 172 *Engineering Drawing* —J R Cockburn  
Department 6, II Years, 7 hours per week, first term, 3 hours per  
week, second term  
Department 8, II Year, 3 hours per week, first term, 6 hours per  
week, second term  
(Same as Department 3 with the exception that Dept 6 has no des-  
criptive geometry )
- 173 *Engineering Drawing* —J R Cockburn, C R Young  
Department 1, III Year, 15 hours per week first term, 12 hours per  
week, second term  
Principles of mapmaking, spherical projection, plotting of original  
surveys relating to topographical and railway work, problems in  
theory of construction, original design of various structures,  
measured drawings
- 174 *Engineering Drawing* —J R Cockburn  
Department 2, III Year, 9 hours per week, first term  
Plotting of original surveys, relating to topographical and railway work  
and mining, problems in theory of construction, original design,  
measured drawings
- 175 *Architectural Drawing* —J R Cockburn, A Wellesley McConnell,  
H H Madill  
Department 4, III Year, 18 hours per week, both terms  
Architectural design, advanced work in monochrome and colours,  
problems in shades, shadows and perspective, problems in theory  
of construction, including framed structures
- 176 *Architectural Drawing* —J R Cockburn  
Department 4, III Year, 1 hour per week, first term  
Advanced work in shades, shadows and perspective
- 177 *Engineering Drawing* —J R Cockburn, C R Young  
Departments 3, 6 and 8, III Year, Department 3, 9 hours per week,  
first term, Department 6, 6 hours per week, first term, Depart-  
ment 8, 3 hours per week, first term  
Problems in design dealing with the theory of structures
- 178 *Structural Design Drawing* —C R Young, W J Smither  
Department 1, IV Year, 22 hours per week, both terms  
Problems in structural design

- 179 *Structural Design Drawing* —C R Young, W J Smither  
 Department 1b, IV Year, 5 hours per week, second term  
 Department 1d, IV Year, 4 hours per week, first term, 8 hours per week, second term  
 Department 1e, IV Year, 6 hours per week, both terms  
 Problems in structural design
- 180 *Structural Design Drawing* —C R Young, W J Smither  
 Department 3, IV Year, 3 hours per week, both terms  
 Problems in mill building design
- 181 *Structural Design Drawing* —P Gillespie, W J Smither  
 Department 3, IV Year, Option (b), 3 hours per week, both terms  
 Problems in reinforced concrete design

## ENGINEERING PHYSICS

- 185 *Illuminating Engineering and Optics* —G R Anderson  
 Departments 1, 3, 6, 7, I Year  
 Rectilinear propagation of light, illumination, photometry, light standards Distribution of light by reflectors and diffusers, general and selective absorption, economic values of artificial lights  
 Illumination calculations  
 Laws of reflection and refraction, theory of optical instruments  
 Light considered as wave motion, dispersion, spectrum analysis, colour phenomena, polarization  
 Lectures and laboratory work, both terms
- 186 *Hydrostatics* —G R Anderson  
 Departments 1, 3, 6, 7, II Year  
 Laws of fluid pressure and application to machines Density of solids, and fluids, theory of flotation  
 Lectures and laboratory work. Spring term
187. *Heat* —G R. Anderson  
 Departments 1, II Year  
 Generation and propagation of heat General and industrial thermometry, calorimetry and pyrometry Linear and cubical expansion, gas laws Specific heat of solids, liquids and gases, latent heat of fusion and vaporization Mechanical equivalent of heat  
 Carnot cycle  
 Lecture and laboratory work, Fall term
- 188 *Photography* —G. R. Anderson  
 Department 1, II Year  
 The camera and its adjustments, lenses, shutters, screens Plates for various purposes, films, prevention of halation Lighting, exposure, development. Paper of various kinds, printing, enlarge-

ment and reduction, blue printing and allied processes      Record  
photography, photogrammetry and photo-surveying      Photo-  
graphy in colour

Lectures Fall term, and laboratory work both terms

189 *Illumination* —G R Anderson

Department 4, II Year

Principles of interior and street illumination      Artificial lighting of  
public and private buildings, etc

190 *Acoustics* —G R Anderson

Department 4, III Year, Department 7, IV Year

Wave motion, propagation, reflection and transmission of sounds  
Laws of vibrating strings, pipes and forks      Velocity of sounds  
Musical scales      Absorption of sound by various substances, use  
of deadening material in buildings      Amount of reverberation  
permissible and desirable in public buildings      Lectures and  
laboratory work

191 *Photographic Surveying*      G R. Anderson.

Department 1a, IV Year, 1 hour lecture and 2 hours laboratory,  
first term

This course presupposes a general knowledge of photographic pro-  
cesses as given in the second year      Treatment of a photograph  
as a perspective drawing from which plan and elevation to scale  
may be obtained under certain conditions      The intersection  
method of photographic surveying, its advantages and limita-  
tions      The stereoscopic method with its advantages and dis-  
advantages      Method of plotting      Accuracy of results

GEOLOGY

193 *Field Work* —E S Moore

Department 2, III Year, one week preceding the opening of the first  
term

194 *Pleistocene Geology and Physiography* —A MacLean

Department 2, IV Year, 1 hour per week, both terms

*Pleistocene Geology* —Lectures on the formation and distribution of  
the drift deposits of North America, with brief references to  
other regions      Glacial, Interglacial, and Postglacial beds are  
described, changes of climate are discussed with their probable  
causes, and the economic features of the clays, sands, and gravels  
are pointed out      A weekly excursion is made during October  
and November to points of interest near Toronto, which is the  
centre of the most important development of the Pleistocene in  
America

- Physiography*—A course of lectures on the surface forms of the earth, with the geological factors which have produced them. The broad features of the earth, its plains, tablelands, hills, valleys, mountains, oceans, rivers, and lakes are discussed in a general way, methods of topographical surveying and mapping are referred to, and the chief physiographic areas of Canada are described.
- 195 *Elementary Geology*—W. A. Paiks  
Departments 1, 2, II Year, 2 hours per week, second term  
This course deals chiefly with historical geology with special reference to Canadian formations  
Works of Reference—Introduction to Geology—Scott, Elementary Geology—Coleman and Parks
- 196 *Geology and Ore Deposits*—A. MacLean  
Department 8, II Year, 2 hours per week, both terms  
Lectures and laboratory work on historical, structural, and economic geology, designed to familiarize the student with the more important principles, facts, and terms of general geology  
Works of Reference—As in Course 195
- 197 *Engineering Geology*—A. MacLean  
Department 1, III Year, 1 hour per week, both terms  
This course deals with the application to engineering of dynamic, structural, and economic geology  
Works of Reference—Engineering Geology—Ries and Watson
- 198 *Dynamic and Structural Geology*—A. MacLean  
Department 2, III Year, 1 hour per week, first term  
Lectures on geological forces and their effects. Particular attention is given to those aspects of the subject which apply in mining.
- 199 *Precambrian Geology*—E. S. Moore  
Department 2, IV Year, 2 hours per week, first term  
Lectures on the Precambrian formations of Canada—their rocks, distribution, relationships, and economic features. Briefer accounts are given of similar formations in the United States and elsewhere  
Works of Reference—Reports of the Geological Survey of Canada and of the Ontario Department of Mines, Reports of the United States Geological Survey.
- 200 *Mining Geology*—E. S. Moore  
Department 2, IV Year, 2 hours per week, second term  
A course of lectures on geological problems associated with mining, typical mining regions in Canada, the United States, and elsewhere being discussed from the geological side.

Works of Reference —Mineral Industry, Ore Deposits of United States and Canada—Kemp, and the works mentioned under Course 199

- 201 *Geological Excursions* —The Staff in Geology.  
Department 2, IV Year  
During October and November weekly trips will be made to points of interest near Toronto
- 202 *Economic Geology* —E S Moore  
Department 2, III Year  
(a) *Ore Deposits* 1 hour per week, both terms  
Discussion of the origin and classification of ore deposits, the mode of occurrence of the chief ores, and statistics of production  
Special attention is given to the metals mined in Canada  
(b) *Economic Geology of the Non-metals* 2 hours per week, second term  
Lectures on the origin and mode of occurrence of the valuable non-metallic substances—coal, oil, building stone, gypsum, cement materials, etc  
Works of Reference —Economic Geology—Ries, General Economic Geology—Emmons, Ore Magmas—Spurr, Coal—Moore, Practical Oil Geology—Hager
- 203 *Economic Geology* —E S Moore  
Department 2, III Year, 2 hours per week, second term  
Laboratory work on ores, manner of occurrence, vein structure, etc., also the examination and construction of geological maps and sections of typical mining regions
- 204 *Special Geology* —A MacLean  
Department 1, Option c, IV Year, 1 hour lecture and 1½ hour laboratory work per week, second term  
A lecture and laboratory course on superficial geology, physiographic control, water geology, etc  
Works of Reference —Political and Commercial Geology—J E. Spurr

#### HYDRAULICS

- 205 *Hydraulics* —R W Angus  
Departments 1, 2, 3, 6, 7, III Year, 2 hours per week, both terms  
This is a course of lectures in hydraulics devoted to the development and discussion of formulae relating to the flow of water in pipes, the measurement of discharge by various methods, such as orifices and weirs, the conditions of flow obtaining in open channels, artificial and natural, and in pipes flowing partially full, together with other kindred subjects



The object of this course is to provide the student with a good working knowledge of the fundamental principle of hydraulics, such as is useful in practical work, and is necessary to the intelligent investigation of more advanced problems, such as the design of water supply, sewerage and irrigation system, and water power plants

206 *Hydraulic Laboratory* —R W Angus, R Taylor

Departments 1, 3, III Year, one 3 hour period per week, second term  
Departments 6, 7, III Year, 4 periods of 3 hours each

The work in this course is intended to illustrate the lecture course given in hydraulics and to give the student some working acquaintance with the formulae met with in practice. Experiments are made to determine the coefficients for orifices of the various types used in practice and for a weir. The results of these experiments are used in measuring the discharge in subsequent experiments on meters and for the determination of hydraulic resistances in various cases of flow in pipes. The complete course illustrates very fully the application of the course of lectures to actual cases

207 *Hydraulics* —R W Angus

Departments 1, 3, 7, IV Year, 1 lecture per week, both terms

A course of lectures dealing with the various problems of unsteady flow such as occurs in power lines, penstocks, etc. Much of the work is done by the process of arithmetic integration, and the lecture work is supplemented by problems solved by the students in the work rooms, the time for which is included in course 209. Surges, water hammer, stream flow data, etc., are discussed

The problems of collection of water for power purposes, use of the mass curve, rainfall and evaporation, turbine governing, etc., are also treated

208 *Hydraulics* —R W Angus

Departments 1, 3, 7, IV Year, 2 lectures per week, both terms

The most important question considered and to which most of the lectures are devoted is the theory of turbines and centrifugal pumps, the effect of the design on the speed, discharge and efficiency being fully taken up. The course includes the selection of turbines and pumps for given service intakes, draft tubes and all matters connected with hydraulic power plants

Text Book —Water Power Engineering—Mead

209 *Hydraulics*.—R W Angus, R Taylor

Departments 1, 3, 7, IV Year, about 10 hours per week in 3 hour periods, both terms, Department 3, Option (c), first term only

A laboratory course devoted to experimental work on turbines of various types and centrifugal and turbine pumps and other similar devices. This experimental work is arranged to illustrate the lectures on turbine and pump design. The experiments are made on two large turbine pumps used in the laboratory supply, as well as on apparatus specially designed for instruction. Various methods of measuring water-power and the efficiency of machines are also given. A list of the equipment now available, and which is used in this course, is given at the end of the Calendar.

1) *Hydraulic Laboratory* —R. Taylor

Departments 2, 8, IV Year, 3 hours per week, second term

A laboratory course of experiments on orifices, weirs and meters

1) *Hydraulics* —R. Taylor

Department 1b, 1c, IV Year, one hour lecture per week, first term

A laboratory course of 3 hours per week, first term, on measurement of water, flow in open channels and on pumps

2) *Hydraulics* —R. Taylor

Department 3, IV Year, Option (c), one hour lecture per week, both terms

A lecture course on pumps and other hydraulic machinery

## HEAT ENGINES

1) *Steam Engines* —E. A. Allcut

Departments 3 and 7, II Year, 1 lecture per week, both terms

Departments 2 and 8, II Year, 1 lecture per week, first term

This course of lectures includes a discussion of the history and development of the steam engine and the functioning of its various component parts. Special attention is given to the theory and design of valves and valve operating mechanisms.

1) *Thermodynamics* —E. A. Allcut

Departments 3, 6 and 7, III Year, 2 lectures per week, both terms

In this lecture course the laws of heat are used to develop the characteristic equation for a perfect gas and the use of thermal lines on the pressure-volume diagram. The properties of Carnot's cycle are then considered, followed by application of these principles to the hot-air engine, internal combustion engine and air compressor. A consideration of the properties of vapours and their application to the steam engine cycle concludes the course.

3) *Heat Engines* —E. A. Allcut

Department 3, III Year, 2 lectures per week, both terms

Departments 7 and 8, III Year, 1 lecture per week, both terms

The course in Heat Engines is intended to supplement the general lecture course in Thermodynamics by showing the practical

applications of the laws discussed therein. A general consideration of the laws of combustion and heat transmission is followed by their application to boiler practice. Details of steam, gas and oil engines are described and the lectures are arranged as far as possible to supplement the information obtained in the laboratory course 219.

- 219 *Thermodynamics and Mechanical Laboratory* —R. W. Angus, E. A. Allcut, H. A. Tuttle

Department 3, III Year, one 3 hour period per week, both terms

Department 7, III Year, 2 hours per week, first term, 1½ hours per week, second term. Time to be in three-hour periods

This laboratory course is designed to assist in a clearer understanding of thermodynamics, machine design and mechanics of machinery. The work in thermodynamics consists in the setting of slide valves, indicating engines measuring the brake horse-power, simple engine and boiler tests and the testing of gas and gasoline engines under various conditions. The mechanical laboratory work deals with the efficiency of belts as well as of several machines of simple construction. An examination of lubricating oils is also made by means of well-known methods. Experiments are also made on the balancing of reciprocating and rotating masses.

- 220 *Thermodynamics* —E. A. Allcut

Departments 3 and 7, IV Year, 2 lectures per week, both terms

This is a continuation of course 217, the general thermodynamic theory being studied from the conception of the thermodynamic surface. The theory of the flow of gases and vapours through orifices, nozzles and pipes is then discussed and its application to the various forms of turbines is outlined. Following this, the principles of refrigeration, binary fluid engines and internal combustion are dealt with.

- 221 *Heat Engines* —E. A. Allcut

Departments 3 and 7, IV Year, 1 lecture per week, both terms

This course is a continuation of the lectures on heat engines given in the Third Year, with special application to the steam power plant. The causes of the various losses occurring in steam engines and the considerations that influence them are studied in detail. Special attention is given to condensing plants, consumption records and other factors upon which the efficiency of a power plant depends.

- 222 *Thermodynamics* —R. W. Angus, E. A. Allcut, H. A. Tuttle

Departments 3 and 7, IV Year, about 9½ hours per week, in 3 hour periods

The work in this year is a continuation and extension of the work covered in the third year laboratory course. Careful tests are made of engines of various types, such as simple, tandem and

cross-compound steam engines, steam turbine, refrigerating machine, injectors and steam pumps, etc., and an application is made of Hirn's analysis and the entropy diagram to the results obtained. A complete set of experiments is made on each machine and the result plotted so as to show clearly to the student the effect of various alterations in the adjustment of the engine on the resulting efficiency.

Several modern gas and gasoline engines give ample opportunity for the study of this type of engine, and facilities are provided for sampling the gas supply and exhaust.

Two experimental stacks and three boilers enable results to be obtained on boiler efficiency and chimney draft.

223 *Thermodynamics* —E. A. Allcut

Department 1, III Year, 1 lecture per week, both terms

Departments 2 and 8, IV Year, 1 lecture per week, both terms

The general principles of thermodynamics, the properties of a perfect gas and their application to the Carnot cycle are first studied. This is followed by a consideration of the air compressor cycle, some details of air compressor operation and the theory of the flow of air through pipes and orifices. The properties of vapours and the principles of steam engine operation are also discussed.

224 *Thermodynamic Laboratory* —H. A. Tuttle

Departments 1 and 6, III Year, 7 three-hour periods, Departments 2 and 8, IV Year, 3 hours per week, first term

A course of experiments with steam and gas engines, compressed air, etc.

225 *Motive Power* —R. W. Angus

Department 1, Option e, IV Year, one hour per week, both terms

A course of lectures covering boiler capacity, locomotive horse-power, tractive effort, etc., necessary to carry specified trains over different conditions of roadbed.

226 *Heating and Ventilation* —J. H. Parkin

Department 3, IV Year, Option (c), one hour per week, both terms

This course is designed to give a working acquaintance with the essential engineering principles underlying the practice of heating and ventilation work.

227 *Refrigeration* —J. H. Parkin

Department 3, IV Year, Option (c), one hour per week, both terms

A course covering the principles underlying mechanical refrigeration, physical properties of different refrigerants, and a study of the various standard types of refrigerating machines and systems.

228 *Thermodynamics Laboratory* —H. A. Tuttle

Department 3, IV Year, Option (c), three hours per week, both terms

A laboratory course on heating, ventilation, refrigeration, etc.

## MACHINERY

230 *Theory of Mechanism* —J H Parkin

Departments 2, 3 and 7, II Year, lectures 2 hours per week, problems  
1½ hours per week, both terms

This course of lectures treats of the elementary construction of machines and of the motions of the various parts. Methods of determining linear and angular velocities, methods for the solution of elementary problems involving forces and methods for the determination of the mechanical efficiency of machines are discussed. Velocity diagrams, crank effort and torque diagrams are plotted. Cams, toothed gearing and various types and applications of trains of gearing are considered.

Applications of the methods described are made to various machines including engines, machine tools, link motions, etc., and the lecture work is followed up by the solution of numerous examples in the drafting room.

Text Book —Theory of Machines—Angus

231. *Mechanics of Machinery* —J H Parkin

Departments 3 and 7, III Year, 1 hour per week, both terms

This course is devoted to a consideration of the speed regulation and balancing of machines, and comprises lectures on the theory of various forms of governors, kinetic energy of machines and determination of speed fluctuations, the proper weight of fly-wheel, acceleration and inertia effects, and balancing.

The methods of analysis employed are those developed in course 220.

Text Book —Theory of Machines—Angus

232 *Elementary Machine Design* —U C Holland

Departments 3, 6 and 7, II Year, 1 hour per week, both terms

This is a preparatory course intended to familiarize the student with the different shop methods and processes, casting, forging, machining, etc., used in the production of machine parts, to enable him to make proper provision in the design of such parts to facilitate their production.

In addition, the various standards, machine and pipe threads, tapers, pipe fittings, etc., are described and mechanical drafting room practice explained.

Tolerances, limits, fits and gauges are discussed.

The design of simple machine fastenings and parts is taken up and examples worked out in the drafting room.

233 *Machine Design* —J H Parkin and U C Holland

Departments 3 and 7, III Year, 2 lectures per week, both terms

The design work averages 7 hours per week for Department 3, and 4 hours per week for Department 7, the periods to be of not less than 2 hours' duration.

The lectures in this course deal with the design of various machine elements, including shafting, bearings (journal, thrust, ball and roller), belts, pulleys, fly-wheels, clutches, springs, machine frames, etc

The problems worked out in the drafting room are planned to include the design of all of the above and with a view to developing the student's judgment and sense of proportion in design

Text Book —Machine Design—Leutwiler

234 *Machine Design* —J H Parkin and U C Holland

Department 6, IV Year, Department 8, III Year, 1 lecture per week, both terms

The design work occupies 3 hours per week for the second term only

The lectures in this course deal with the design of various machine elements, particularly those likely to be met with in Chemical and Metallurgical plants

The problems worked out in the drafting room are designed to give the student training in the general lay-out of shafting and plant machinery, as well as in the design of simple parts for chemical and metallurgical apparatus

Text Book —Machine Design—Leutwiler

235 *Advanced Machine Design* —J H Parkin and U C Holland

Department 3, IV Year, 2 lectures per week in the first term, 1 lecture per week in the second term

The design work averages  $6\frac{1}{2}$  hours per week for Option (a), 6 hours per week for Option (b) and 7 hours per week for Option (c), the periods to be of not less than 2 hours' duration

The work of this course is devoted to the design of complete machines with the object of giving the student practice not only in the design of various details, but also in working in the various elements into a machine of smooth and harmonious design. The machines chosen as examples for design involve as many new machine elements as possible in order to broaden the training of the student

Text Book —Machine Design—Leutwiler

## MATHEMATICS

236 *Calculus* —A T DeLury

All Departments, I Year, 2 hours per week, each term

Treatment of limits with special reference to those pertaining to exponentials and logarithms. Derivation of the fundamental formulae of the differential and integral calculus, with early application to simple problems concerning graphs, areas, volumes, lengths, etc

- 237 *Calculus* —S Beatty and J L Syngé  
Departments 1, 3, 6 and 7, II Year, 1 hour per week, both terms  
Continuation of course 236 The elementary theory reviewed and extended Special attention to applications with problems in Engineering mostly in view
238. *Analytical Geometry* —I R Pounder  
All Departments, I Year, 1 hour per week, first term, 2 hours per week, second term  
The course in Elementary Analytical Geometry covers the more familiar propositions in connection with the straight line, circle, parabola, ellipse and hyperbola The subject is treated so as to illustrate the general methods of analytical geometry
- 239 *Trigonometry, Spherical* —L B Stewart  
Department 1, II Year, 1 hour per week, first term  
A course of lectures includes the derivation of formulæ and their application to the solution of triangles and to practical problems  
Text Book.—Spherical Trigonometry—Todhunter and Leatham
- 240 *Least Squares, Method of* —L B Stewart  
Department 1, III Year, 1 hour per week, second term  
The course of lectures includes. The general principles of probability, the law of error, direct measurements of equal and different weights, mean square and probable errors, indirect measurements, conditioned observations, applications to empirical constants and formulæ, etc  
Text book —Least Squares—Merriman.

## METALLURGY

- 241 *Elementary Metallurgy* —G A Guess  
Departments 1, 2, 3, 6 and 8, II Year, 1 hour per week, second term  
A course of about 12 lectures on furnace metallurgy and present practice, with special reference to iron and steel
- 242 *Fuels and Combustion* —G A Guess  
Department 8, II Year, 1 hour per week, both terms  
A lecture course dealing with fuels, their use, preparation, calorific value and combustion
- 243 *Metallurgy* —G A Guess  
Departments 2, 6, III Year, 1 hour per week, both terms  
Fuels, temperature of combustion, specific heat, conductivity and problems thereon, chimneys, furnaces, refractories, outline of furnace metallurgy and hydro-metallurgy

- 244 *Physical Metallurgy* —O W Ellis  
Departments 2, 3, 6 and 7, III Year, 2 hours per week, second term  
The physical properties and structure of iron and steel and the more common alloys
- 245 *Metallurgy* —G A Guess, J E Toomer  
Department 8, III Year, 2 hours per week, first term, 1 hour per week, second term  
A lecture course on General Metallurgy accompanied by 3 hours laboratory per week, first term, and 6 continuous hours per week second term
- 246 *Physical Metallurgy* —O W Ellis  
Department 8, III Year, 1 hour per week, both terms  
Changes of phase and of state, pyrometry, preparation of alloys, miscibility of metals, binary, ternary and complex alloys, the use of the microscope, with 3 hours laboratory per week, first term
- 247 *Metallurgy* —G A Guess, J E Toomer  
Departments 2 and 6, IV Year, 1 hour lecture per week, both terms, 6 continuous hours laboratory per week, second term  
General metallurgy and metallurgical problems
- 248 *Metallurgy Problems* —G A Guess, J E Toomer  
Department 8, IV Year, 2 hours lecture and 4 hours laboratory, both terms  
Metallurgical book-keeping, balance sheets, thermal balance sheets, methods and processes
- 249 *Metallurgy* —G A Guess  
Department 8, IV Year, 1 hour per week, both terms  
Critical reading and discussion of papers and articles, describing metallurgical processes or dealing with plant arrangement and construction Metallurgical flow sheets of typical plants
- 250 *Physical Metallurgy* —O W Ellis  
Departments 6 and 8, IV Year, 1 hour lecture and 3 hours laboratory per week, both terms
- 251 *Metallography* —O W Ellis  
Department 2, IV Year  
A laboratory course of 3 hours per week, second term
- 252 *Physical Metallurgy* —O W Ellis  
Department 1, IV Year, 1 hour per week both terms  
The physical properties of metals and alloys used in Civil Engineering practice—specifications



- 253 *Heat Treatment of Iron and Steel* —O W Ellis  
 Department 3, IV Year, 1 lecture per week, both terms  
 Heat treatment of iron and steel, case carburizing, case hardening  
 and malleablizing

## MINERALOGY

- 255 *Elementary Mineralogy* —J E Thomson  
 Department 2, I Year, 2 hours per week, first term  
 After introducing the student to the chief chemical, physical, and  
 crystallographic characteristics of minerals, the course becomes  
 descriptive and deals with about one hundred of the minerals most  
 important from the industrial or scientific point of view  
 Text Book —Study of Minerals and Rocks—Rogers
- 256 *Mineralogy* —J E Thomson  
 Departments 6 and 8, I Year, 3 hours per week, one term  
 Introduction to determination of minerals by inspection and physical  
 tests  
 Text Book —Mineral Tables—Eakle
- 257 *Primary Mineralogy* —A L Parsons  
 Department 1, II Year, 2 hours per week, first term  
 A very brief introduction to the study of minerals and rocks  
 Text books —Study of Minerals and Rocks—Rogers, Hand-Book  
 of Rocks—Kemp
- 258 *Mineralogy* —J E Thomson  
 Department 2, I Year, 1 hour per week, first term, 3 hours per week,  
 second term  
 Determination of minerals by inspection and by means of physical  
 tests, introduction to blow-pipe practice  
 Text books —Mineral Tables—Eakle, Determinative Mineralogy—  
 Lewis
- 259 *Mineralogy* —A L Parsons, J E Thomson  
 Department 1, II Year, 1 hour per week, first term, 2 hours per  
 week, second term  
 Determination of minerals by inspection and by means of physical  
 tests, study of common rock types and their identification  
 Text books —Mineral Tables—Eakle, Handbook of Rocks—Kemp
- 260 *Elementary Petrography* —T L Walker  
 Department 2, II Year, 1 hour per week  
 A course of lectures and laboratory work introducing the student to  
 the macroscopic study of rocks  
 Text-books —Handbook of Rocks—Kemp

- 261 *Mineralogy* —J E Thomson  
 Department 2, II Year, 2 hours per week  
 Determination of minerals by means of the blow-pipe and physical properties  
 Text books —Mineral Tables—Eakle, Determinative Mineralogy—Lewis
- 262 *General Petrography* —A L Parsons  
 Department 2, III Year, 1 hour per week  
 Study of the chief rock-forming minerals and of some phases of petrography not covered in the course of the previous year  
 Text Books —Minerals in Rock-Sections—Luquer, Petrology for Students—Harker
- 263 *Petrography* —T L Walker  
 Department 2, III Year, 2 hours per week, both terms  
 Study of the chief rock-forming minerals, of rocks in thin sections and in hand specimens  
 Text books —Petrology for Students—Harker, Minerals in Rock Sections—Luquer

### MODERN LANGUAGES

266. *French* —J H Cameron, Miss J C Laing, L A Bibet  
 Required in Department 4, First Year, 2 hours per week, both terms, II and III Years, 1 hour per week, both terms.

#### *First Year*

- (a) Practice in translation of a selected text bearing on some phase of architectural study (for example, History of Art, History of France, extracts from great French writers), this text being used as a basis for discussion on various aspects of the student's work
- (b) A course in Conversation to encourage the student to acquire a speaking knowledge of the language

#### *Second Year*

- (a) A reading course intended to introduce the student to the best literature on architectural subjects, prescribed text *Guadet Eléments et théorie de l'architecture*, to which may be added other reading selected from time to time
- (b) Conversation course continued from I Year

#### *Third Year*

A continuation and development of the work of the II Year

267. *German* —G H Needler, B Fairley  
 Required in Department 6, all years, 1 hour per week, both terms.  
 An elementary course intended to train the student in the translation of scientific journals and treatises

**268 Spanish**—M. A. Buchanan.

Departments 6, 8, II Year, 1 hour per week, both terms

An introduction to Spanish grammar, pronunciation and practice in reading Engineering Spanish

**PHYSICAL TRAINING****269 Physical Training**—G. D. Porter, D. M. Barton

Required in all departments, I and II Years, and optional in the III and IV Years. Students in the I and II Years must be medically examined at the beginning of the session and are directed to the form of physical work most suitable to their requirements. Those classified as A1 may elect to take any form of competitive athletics during the season in which that form of sport is in progress.

Military training in the C O T C constitutes an option in Physical Training (see page 120)

**SURVEYING****270 Surveying**—S. R. Crerar

Departments 1, 2, 3, 7 and 8, I Year, 1 hour per week, both terms

The lecture course includes the general principles, surveying with the chain, the compass and chain and the transit and chain, and level, the applications of trigonometry to inaccessible heights and distances, mensuration of surfaces, co-ordinate surveying, division of land, etc.

Text books—Plane Surveying—Tracy, Theory and Practice of Surveying—Johnston and Smith, Elementary Surveying—Breed and Hosmer

**271 Field Work**—S. R. Crerar, J. W. Melson.

Departments 1, 2, 3, 7 and 8, I Year, 5 hours per week, first term

This course comprises testing chains, practice in chaining, a complete survey of a piece of land with the chain and transit, keeping of field notes, the use of the transit and compass in surveying closed figures and traverse lines and in ranging straight lines, plotting by latitudes and departures, and otherwise computing areas. Instrumental work with level, including roadway improvement.

**272 Surveying**—W. M. Treadgold, E. W. Banting.

Departments 1 and 2, II Year, 1 hour per week, both terms

This course of lectures takes up in detail, simple, reverse and compound curves as applied to railroad surveying. It also includes stadia, plane table and photographic surveying as applied to topographic work, and the main features of mine and hydrographic surveying.

Text books:—Henck, Searles, Allen (Field books for Engineers)  
Theory and Practice of Surveying—Johnston and Smith, Surveying—Breed and Hosmer

273 *Field Work*—W M Treadgold, E W Banting.

Department 1, II Year, 9 hours per week, first term

Department 2, II Year, 6 hours per week, first term

This course of instruction embraces all adjustments of the transit and level, minor problems in triangulation and traversing—levelling and plane table practice

274 *Surveying and Levelling*—W M Treadgold

Department 1, III Year, 1 hour per week, both terms

This course of lectures takes up the work of the railroad engineer on construction, including profiles, cross sectioning, computation of volume of earthwork, overhaul, transition curves, laying out turnouts, frogs and switches, etc

Also a discussion of trigonometric and barometric levelling

Text books —Field Engineering—Searles, Railroad Curves and Earthworks—Allen

275 *Survey Camp*—W M Treadgold, S R Crerar, E W Banting, J W Melson

Departments 1 and 2, III Year

This course includes

(a) Secondary Triangulation and Base Line Measurements

(b) Stadia, Plane Table and Boundary Traverses

(c) Highway and Railway Location

(d) Cross Sectioning and Computation of Earthwork

(e) Stream Gauging and Discharge Measurements

(f) Hydrographic Surveying

(g) Photographic and Micrometer work

(h) Stadia and Plane Table Topography

(i) Mine Surveying

(j) Observations for Time, Azimuth and Latitude This work is taken at Gull Lake Camp See page 31

276 *Railroad Location and Design*—W M Treadgold

Department 1, Option "e," IV Year, 1 hour lecture per week, both terms, about 8 hours per week, both terms, in the drafting room

This work will consist of an original survey for a railroad some one or two miles in length, the work to be carried out according to the most modern methods of location Upon the completion of the field work, the complete survey will be plotted and a line adjusted to it This will be staked out, profiles taken and the computation made of the earthwork and the preparation of overhaul diagram compiled for determination of haul and borrow In the second term the design of track work, yards and practical problems will be taken up and special problems assigned

## ADDITIONAL FOURTH YEAR COURSES

- 280 *Sanitary Engineering* —Peter Gillespie  
 Department 1b, IV Year, 1 hour lecture per week, both terms, 3 hours laboratory, first term, and 6 hours, second term  
 Consideration is given to the problems of water supply, sewerage and sewage disposal as viewed by the engineer. Some practice in the design of works from assumed data is afforded. Excursions to places of interest are arranged from time to time.  
 Reference Books —Public Water Supplies—Turneaure and Russell, American Sewerage Practice—Metcalf and Eddy, 3 vols
- 281 *Highway Engineering* —A T Laing  
 Department 1b, IV Year, 1 hour lecture and 3 hours laboratory per week, both terms  
 This course of instruction deals with the design, construction and maintenance of public highways and street pavements, also with the properties of the materials employed. Accompanying the course of lectures is a laboratory course dealing with the various bituminous and non-bituminous materials of construction. Excursions to places of interest are arranged for during the fall term.
- 282 *Municipal Seminar* —P Gillespie, A T Laing  
 Department 1b, IV Year, 3 hours per week, both terms  
 This time is devoted to reading, essay writing and discussion of problems relating to highways, transportation, town planning, sanitation and kindred subjects
- 283 *Zymology* —H B Speakman  
 A study of the phenomena of fermentation and their industrial applications

## THESIS

- 285 *Thesis*  
 Required in all Departments, IV Year, with the exception of Department 4, Architectural Design Option  
 Each student is required to prepare a thesis of between six thousand and seven thousand words on a subject approved by Council.  
 See circular of information

## OUTLINE OF VACATION WORK

- 286 *Construction Notes*  
 Required Departments 1, 2, 3, 4, 6, 7  
 The construction notes required consist of neat and complete dimensioned sketches in pencil of any structures, machines or plants which may be of interest. Any object chosen should be represented and dimensioned in such a manner that it could be completely constructed from the notes as the only available information. (See page 29)

From students in Department 2, who have been actually engaged during the summer with Government or other approved geological survey parties, geological field notes will be accepted in lieu of construction notes

### SCHOOL OF ENGINEERING RESEARCH

A School of Engineering Research, within the Faculty of Applied Science and Engineering, was established in the Spring of 1917 at the suggestion of the late Dean Ellis

The School is under the direct supervision of a Committee of Management composed of fifteen Members of the Faculty Council. To this Committee is entrusted the selection of researches to be undertaken under the auspices of the School, and the disposition of funds conducting them

The School was organized chiefly for the training of graduates in methods of research, and for the carrying out of investigations. These latter may be problems relating to specific industries or raw materials and having a specific end in view, or general problems having to do with fundamental principles

A number of research assistants are appointed annually in the various departments of the Faculty to carry on the work of research under direction of members of the staff. The facilities of the School are also open to graduates who desire to penetrate more deeply into particular phases of experimental work, or to undertake investigations either suggested by members of the staff or arising from their own work since graduation

Address communications to the Secretary—Professor Maitland Boswell, Ph D

### ADVANCED COURSE IN HYDRO-ELECTRIC POWER

In view of the importance of Hydro-Electric power in Canada, further facilities are offered to those graduates who wish to supplement the present extensive undergraduate courses bearing upon this subject. Graduate studies may be pursued by candidates for the Degree of Master of Applied Science as soon as desired after graduation

To those returning after satisfactory experience in some approved phase of Hydro-Electric work, somewhat more specialized courses may be given than are possible with very recent graduates. The Engineering Alumni Association of the University has expressed its willingness and desire to assist such candidates in obtaining suitable employment to fit them for these courses of study, but such courses are available only to those with the proper undergraduate preparation

Graduates who may wish to avail themselves of the arrangements proposed are advised to communicate with the Dean

It should be noted that candidates for post-graduate degrees register with the Secretary of the School of Graduate Studies For further particulars see Calendar of the School of Graduate Studies and page 103 of this Calendar "

MASTER OF APPLIED SCIENCE DEGREE  
MASTER OF ARCHITECTURE DEGREE

- 1A A candidate for the degree of M A Sc shall hold the degree of B A Sc of this University or a degree from some other University recognized as equivalent by the Council of the School of Graduate Studies
- 1B A candidate for the degree of Master of Architecture should hold the degree of Bachelor of Architecture or the degree of Bachelor of Applied Science in Architecture of this University or a degree from some other University recognized as equivalent by the Council of the School of Graduate Studies
- 2 He shall register with the Secretary of the School of Graduate Studies at the beginning of the academic year
- 3 Not later than November 1 of his academic year, he shall submit to the Secretary for acceptance by the School of Graduate Studies the title of his proposed thesis as approved by the department concerned.
- 4 Not later than April 30th of his academic year, he shall present evidence to the Council of the School of Graduate Studies that he has spent not less than one academic year of the department concerned as a student enrolled in one of the following departments on a course of study approved by the department —Civil Engineering, Mining Engineering, Mechanical Engineering, Architecture, Chemical Engineering, Electrical Engineering, Metallurgical Engineering
- 5 Not later than April 30th of his academic year, evidence that the candidate has satisfactorily met all the requirements of the department with regard to thesis and to such examinations as the department shall require, shall be forwarded to the Council of the School of Graduate of Studies through the sub-committee administering the regulations governing the degrees of M A Sc and M Arch

## PROFESSIONAL DEGREES

The attention of graduates is directed to the following regulations respecting professional degrees

The following degrees have been established Civil Engineer (C E ), Mining Engineer (M E ), Mechanical Engineer (M E ), Electrical Engineer (E E ), Chemical Engineer (Chem E ), Metallurgical Engineer (Met E ), subject to the following regulations

- 1 A candidate for one of the said degrees shall hold the diploma of the School of Practical Science or of the Faculty of Applied Science and Engineering or the degree of Bachelor of Applied Science
- 2 He shall have spent at least three years after receiving the diploma or the degree in the actual practice of the branch of engineering wherein he is a candidate for a degree
3. Intervals of non-employment or of employment in other branches of engineering shall not be included in the above three years It shall not be necessary that the several periods requisite to make up the said three years be consecutive
- 4 Satisfactory evidence shall be submitted to the University examiners as to the nature and length of the candidate's professional experience for the purpose of clauses 2 and 3

The Examiners may satisfy themselves by oral or written examinations in regard to the candidate's experience and competence

- 5 The candidate shall prepare an original thesis on some engineering subject in the branch in which he wishes a degree, the said thesis to be accompanied by all necessary descriptions, details, drawings, bills of quantities, specifications and estimates

The candidates may be required at the option of the Examiners to undergo an examination in the subject of this thesis

- 6 Notice in writing shall be sent to the Secretary not later than the first day of November, informing him of the degree to which the candidate wishes to proceed and of the title of his proposed thesis for the approval of the Examiners
- 7 The evidence under clause 4, and the thesis, with accompanying papers, described in clause 5, shall be sent to the Secretary not later than the first day of April
- 8 The candidate shall be required to present himself for examination in the month of April at such time as may be arranged by the Examiners
- 9 The fee for any one of the said degrees shall be twenty dollars, and shall be paid to the Bursar not later than the first day of April



- 10 The thesis, drawings, and other papers submitted under clause 7 shall become the property of the University
- 11 Nothing in this statute shall prevent any candidate from receiving more than one of the said degrees, provided he has the necessary qualifications for each degree. An interval of three years must elapse between the granting of any two degrees under this statute
- 12 All communications must be addressed to the Secretary of the School of Graduate Studies

### CERTIFICATE FOR HIGH SCHOOL ASSISTANT

The Calendar of the Ontario College of Education provides for the admission of the holder of a degree in Science to the Course for a High School Assistant's certificate. The regulation requires that the applicant shall submit with his application

"His certificate of graduation as Bachelor or Master of Arts, Bachelor or Master of Science, Bachelor of Commerce, Bachelor of Agriculture, or Bachelor of Applied Science, from a British University, after the regular university course approved by the Minister of Education as to entrance requirements and as to content of the undergraduate courses. Each applicant must have Upper School or Honour Matriculation standing in English and History and Mathematics or the equivalent of such standing."

# LABORATORY EQUIPMENT

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## THERMODYNAMIC AND MECHANICAL LABORATORY

The University in 1919 completed the erection of a large, well-equipped building for the accommodation of the steam, gas, mechanical and hydraulic laboratories. A more complete description of the laboratories has been published elsewhere, so that the present description is only intended to give the main features.

The part of the building set apart for thermodynamics and other mechanical work is the ground floor of a room 60 ft x 155 ft. This room is lighted entirely from the roof in a very perfect way. A part of the space 40 ft wide running the entire length of 155 feet is served by a 3 ton traveling crane and contains the following equipment:

- 50 h p Brown engine with separate jackets on both heads and barrel of cylinder

- Two-stage Rand air compressor having compound steam cylinders, each fitted with Meyer cut-off gear. The low pressure air cylinder has Corliss inlet gear.

- 30 h p high-speed Leonard tandem compound engine with shaft governor

- 15 h p high-speed McEwan engine

- 75 h p two-line compound Willans engine

- 25 h p General Electric steam turbine

- Two 15 h p Leonard engines with different types of valves, which are used for valve setting.

There are also two surface condensers with air pumps so arranged that any engine in the laboratory may be made to exhaust into the atmosphere through an open heater or into one of the condensers, the change from one arrangement to the other being accomplished in a few minutes without the aid of valves.

The laboratory further contains

- A 3 ton York refrigerating machine with tanks

- An Amsler transmission dynamometer

- Apparatus for testing injectors and steam pumps

- Numerous other pieces of apparatus and instruments

The work on internal combustion engines and producers is performed on the following:

- 18 h p Canada suction gas producer

- 14 h p National gas engine arranged for various compressions and points of ignition

10 h p Fielding and Platt engine for city gas or coal oil, having various adjustments

8 h p Otto gas engine

25 h p Allen semi-Diesel engine

25 h p tractor gasoline engine

200 h p Sprague electric dynamometer

Various accessories to above machines

Steam for the laboratory is supplied by two 50 h p and one 100 h p Babcock and Wilcox boilers, the latter having an internal superheater. These boilers are located in a separate boiler room. They are used for experimental work only and are fitted up for testing. The gases pass up through two independent chimneys, and these have been arranged so that the draft and other conditions in the chimney at any point of its height may be examined.

In smaller work-rooms off the main laboratory are placed belt and oil testing machines, apparatus for testing the efficiency of gears and machines, and for experiments in the balancing of machinery.

### HYDRAULIC LABORATORY

The hydraulic laboratory occupies two floors each 40 feet  $\times$  112 feet, which are well lighted by large windows on the side and end.

The water for the experimental work is pumped through the various pieces of apparatus from a well by means of two turbine pumping units, both of which are driven by a Belliss and Morcom compound engine of 125 h p running at a speed of 525 revs per minute. Both engine and pumps have been installed with a view to using them in experimental work as well as for supply of water for other apparatus used in the laboratory.

The pumping units are capable of delivering one cubic foot of water per second against heads of 250 feet and 300 feet respectively. These units are designed and connected up so that they may be run in series giving the above discharge at 550 feet head, or they may be run in parallel giving double the discharge at a lower head. Each pumping unit consists of two two-stage pumps mounted on a common base and driven by a single pulley, and the construction and piping are such that each two-stage pump may be driven separately or that all may be driven at once, discharging separately one cubic foot per second at about 125 feet head through each of four independent pipes, or else the pumps may be run in series or in parallel. The scheme is thus well adapted to laboratory work, and under the heads used on reaction turbines about six cubic feet per second may be obtained.

In addition to this there is an electrically driven pump capable of delivering six cubic feet per second at a head of sixty-five feet and which is most helpful in turbine testing. Attention is called to the special turbine testing flume described below.

The laboratory further contains a large vertical steel tank 5½ feet diameter by 34 feet with arrangements for the attachment of nozzles

and other mouthpieces, etc. Connections are also arranged for reaction turbines, the tank acting as a reservoir.

The discharge from the turbines or nozzles is measured in a weir tank nearly 6 feet wide and 21 feet long, containing a contracted weir  $4\frac{1}{2}$  feet wide. This weir may be calibrated by two weighing tanks, each having a capacity of about 240 cubic feet.

There are three reaction turbines and two impulse wheels all ready for experiment, the power being measured by brakes and the water by weir or orifices. Amongst the reaction turbines may be mentioned the one designed and built by Escher Wyss & Co., specially for the laboratory.

A new and specially designed turbine testing flume has recently been added to the laboratory, the machinery for which has been largely furnished through the kindness of the Dominion Engineering Works, Montreal, and Wm. Cramp and Sons, Philadelphia. This flume is supplied with water by a Moody spiral pump of twelve cubic feet per second capacity and at present there are two turbines, one of the propeller type, and also two special draft tubes and more will be added. This provides an excellent opportunity for experiment and research.

Smaller orifice and weir tanks, each about  $3 \times 3 \times 12$  feet with necessary measuring tanks, are arranged for instruction in coefficients of various kinds and practice with weirs and orifices.

A Venturi meter and other meters, also an hydraulic ram and similar devices are available for testing, and good facilities have been arranged for investigating friction and other properties of pipes and fire hose.

For special investigations on turbine and centrifugal pumps, other pumps in addition to those already described have been arranged.

The basement of the laboratory contains an open trough 5 feet wide, about 110 feet long, with a large weir at one end. It is intended to use this trough for experiments on the flow in open channels, for measurements of large discharges by means of the weir, and for experiments with current meters and Pitot tubes.

Numerous pieces of smaller apparatus, together with all instruments required, have also been provided, and the laboratory equipment is believed to be very complete.

### AERODYNAMIC LABORATORY

The Aerodynamic Laboratory is located in a separate special building. The Laboratory is fully equipped with an improved 4-ft. Royal Aircraft Establishment type wind channel, aerodynamic balance, micromanometers and other necessary instruments.

Air speeds of 80 feet per second can be secured in a stream of great steadiness and uniformity and higher speeds with some sacrifice in steadiness.

The work done in the Laboratory includes the investigation of problems in aerodynamics, tests of air craft components, and complete machines, rating of meters, ventilators, radiators, etc., and the study of the effect of wind pressure on structures, chimneys, etc.

DONATIONS TO THE THERMODYNAMIC AND  
HYDRAULIC LABORATORIES

The following donations to the equipment of the laboratories have been made through the kindness of those mentioned

50 h p Wheeler Surface Condenser, presented by Mr F M Wheeler, New York

Blake Feed Pump, presented by the manufacturers

6-inch New American Turbine, presented by Wm Kennedy & Sons, Owen Sound, Ont

Two Crown Water Meters, presented by the National Meter Co, New York, through Mr M Warnock, Toronto

Rock Drill, presented by Sullivan Machinery Co, New York, through Mr A E Blackwood, '95

Marine Gasoline Engine, presented by Canadian Fairbanks Co, Montreal

Two engines with different types of valve, presented by Messrs E Leonard & Sons, London, Ont

Bundy trap from American Radiator Co, through Messrs Russell & Gifford

Dunham steam trap from C A Dunham Co

Sectional models of valves from American Radiator Co

Sectional model Mason Reducing Valve by Russell & Gifford

Tanks, etc, by John Inglis Co

Pressure Fan from Sheldons Ltd, Galt

Model water turbine test runner from Wellman, Seaver Morgan Co, Cleveland, O

Equipment for new turbine testing flume from Dominion Engineering Works, Montreal

Multi-stage pump from Goldie and McCulloch, Galt

Hytor vacuum pump complete with motor, etc, from Nash Engineering Co, Norwalk, Conn, through A S Lertch and Co, Toronto

Model water turbine runners from Allis-Chalmers Co, Milwaukee

Section of Trident water meter from Neptune Meter Co, Toronto

In addition to the above, other firms have materially assisted by offering apparatus at or below cost price, among whom may be specially mentioned, The Canadian Rand Drill Co, Sherbrooke, Quebec

The following machines are gifts from the Royal Air Force

One S E 5 Scout

One Avro Training Biplane

Liberty Aeroplane Motor 400 h p

200 B h p Siddeley Deasey Aero Engine

120 h p Beardmore Aero Engine

Curtis Engine (Sectional)  
 Hispano Suiza Aero Engine  
 80 h p Le Rhone Rotary Engine  
 Clerget Rotary Engine  
 Gnome Monosoupape Engine  
 Admiralty Rotary Engine 150 h p  
 Models of Engines, etc , and numerous spare parts

## ENGINEERING PHYSICS LABORATORIES

### *Illuminating Engineering*

The laboratories for this work are equipped with 3 metre optical benches for instruction in the fundamental theory of optical instruments. There is also a general equipment consisting of one or more of the following: telescopes, field glasses, microscopes, spectrometers, sextants, range finders, polarizing instruments, etc. For work in illumination there is provided a 3 metre precision photometer with integrating mirrors and rotator, integrating spheres, radial distribution photometer, portable illuminometers, spectro-photometer, gas light photometer, life racks, etc.

### *Hydrostatic Laboratory*

The Hydrostatic Laboratory is supplied with various types of hydro-meters, hydrostatic balances, pumps, gauges, etc.

### *Heat Laboratory*

The Heat Laboratory is equipped with a full supply of colorimeters and accessories for determination of latent and specific heat, expansion apparatus, air thermometer, apparatus for verification of Boyle's law and pressure and boiling curve, and for determination of the absolute expansion of mercury, Callendar's apparatus for determination of the mechanical equivalent of heat. Calorimeter for the determination of the value of solid, liquid and gaseous fuels.

### *Acoustical Laboratory*

The Acoustical Laboratory is provided with sonometer, siren, forks ordinary and electric, Lissajous' and Melde's apparatus, organ pipes of various forms, manometric flame apparatus and a special equipment for work in architectural acoustics consisting of torsion chronograph, electro-pneumatic wind chest and standardized organ pipes and other accessories.

The following donations have been received for work in Illuminating Engineering, and are gratefully acknowledged:

Sample board of electric fittings from the Harvey-Hubbell Co , Toronto,  
 Sample board and easel, showing types of condulets, from the Crouse-Hinds Co , Toronto,  
 Demonstration sets to show construction of incandescent electric light bulbs, from the Canadian Sunbeam Lamp Co , Toronto,

Lamp rack illustrating various types of incandescent electric bulbs, from the Canadian Westinghouse Co., Hamilton,  
Sample board illustrating types of industrial reflectors and elect and other fittings, Benjamin Electric Co., Toronto  
Gasoline Mantle Lamps, Coleman Lamp Co., Toronto

### PHOTOGRAPHIC AND PROJECTION LABORATORIES

The Photographic Laboratory contains a supply of small cameras for the use of students, enlarging cameras, printers, blue printing machine and the necessary dark rooms

This Department also carries on a photographic and projection service for all Faculties and Departments of the University. The equipment for this work consists of cameras for making photographs up to full plate size, enlargers, photo-micrographic apparatus, motion picture cameras for both gross and micro work, with the necessary developing and printing machines, a rotary blue print machine, a photostat, etc.

For projection service there is a motion picture projector and a number of projection lanterns for service in any University Building

### ELECTRICAL LABORATORIES

The Department of Electrical Engineering is located in the Electrical Building. The accommodation includes quarters for staff, library, lecture rooms, laboratories, stores, and shop for repairs and construction.

Services—Three-wire direct-current, 110 kw, from the University power house, automatically regulated at our end for constant voltage of desired value at our main switchboard. Three-phase, 60 cycles, 60 k v a, 115 volts, automatically regulated as to voltage and frequency. Three-phase, 25 cycles, 30 k v a, automatically regulated as to voltage and frequency. Every laboratory has all three services available at convenient places. There are three main boards, one for each floor. A system of special trunk lines between boards, and tree systems on each floor, enable easy arrangement of any desired special connections from any laboratory to any other.

Alternating current laboratory—Area 26 x 110 ft, service sets 60 and 25 cycles, Tirrill regulators. Two 60-cycle and two 25-cycle, 15 k v a. motor-generator sets, converters, various motors, squirrel cage and wound rotor induction types, repulsion and other single-phase types, unity power factor motor, polyphase motor with variable speed shunt characteristics and speed range of 4 to 1, transformers, single and three-phase, constant-current transformers with load of series arc lamps, lamp racks, reactors, condensers, brakes, etc., oscillographs, indicating, graphic, recording, and demand meters of the best makes, all arranged to facilitate a very general line of experimental work.

Direct current laboratory—40 kw 230 to 115 volt motor generator set with Tirrill regulator for special tests Numerous 5 kw to 10 kw motor-generator sets, shunt, series, compound motors, special interpole machines, loading racks, dynamometers, rheostats, numerous meters of first quality, etc., for any sort of study

Measurements Laboratory—26 x 110 ft Fitted with very flexible storage battery service which can be connected to any desired working place, d c three-wire service, also 60 and 25-cycle three-phase everywhere, galvanometers, resistance boxes, bridges, shunts, potentiometers, standard cells, bond testers, ductor, megger, apparatus for measuring low resistances, artificial lines for fault measurements, condensers, inductances, rails, cables, voltmeters, ammeters, wattmeters, dynamometers, etc., for general work on a great variety of measurements

High voltage laboratory—For various lines of study with voltages up to 200,000 volts Flexible and safe provision for control

Materials laboratories—One specially fitted for general work on conducting materials, one for magnetic materials, one for dielectric materials

Radio laboratory—Adapted for the measurement of various quantities of interest in this work, including the strength of incoming signals One single conductor aerial 1,000 ft long, one multi-conductor aerial 120 ft long

Standardizing laboratories—One students' calibration room for direct-current meters, another for alternating-current meters A standards room, constant temperature, for master standards of voltage, resistance, current, power, etc

Research laboratories—Four rooms set apart for this work, in combination with facilities of the other laboratories

Design laboratory—Arranged for calculation work on apparatus selected to illustrate essential principles

## CHEMICAL LABORATORIES

The Chemical laboratories are situated in the western half of the Chemistry and Mining building, on the first and second floors The rooms are large and well lighted, and are supplied with the usual modern equipment

The first and second year laboratory for qualitative work has accommodation for 112 students, each working space being supplied with water, gas and fume cupboard The laboratory for quantitative analysis will accommodate 48 students, and is supplied with commodious fume cupboards and all necessary apparatus A laboratory with working places for 36 is provided for the students engaged in the study of technical chemistry, it is equipped with appliances for the preparation and testing of chemical products Laboratories for fourth year students with accommodation for twenty workers has been fitted up Each of these laboratories has its own balance room adjoining furnished with instruments from the best makers and adapted to the particular objects in view



In addition there are rooms set apart for research, for gas analysis, and a specially constructed fireproof laboratory for combustion, crucible and bomb furnaces. Each of these laboratories is supplied with apparatus of the most approved design, providing excellent facilities for the prosecution of work in analytical and technical chemistry.

A start has been made in equipping in a room in the basement, set apart for the purpose, as a laboratory for carrying on chemical operations on a small factory scale.

### ELECTROCHEMICAL LABORATORIES

The Electrochemical laboratories, which are situated in the Chemistry and Mining building, are provided with special facilities for electrolytic work, including a large storage battery and electroplating dynamo with tanks as well as a good set of apparatus and electrical measuring instruments. The experimental work on electric furnaces is carried out in a large furnace room in the basement, occupied jointly by this Department and the Department of Metallurgy. The equipment for this purpose comprises a 120 KW, 110 volt generator supplying direct current through a switchboard, rheostats, circuit-breaker and instruments to a set of distributing bus-bars, and a 200 KV-a transformer stepping down from 2200 volts to 30-120 volts in 3 and 6 volt steps, which supplies alternating current at 25 cycles. There is a complete set of A C instruments, circuit-breakers, oil-switches, relays, automatic regulating winches, etc., and a Northrup high frequency furnace with its transformer is also installed.

### ASSAYING LABORATORIES

These are situated in the west end of the basement in the Mining Building. They consist of five rooms, in addition to a library for study and an instructor's room. The East laboratory, 17 x 47 feet, and the West laboratory, 28 x 37 feet, are equipped with coal, oil, gas, and electric furnaces of various design. Each room has a fume cupboard, and the necessary equipment for the wet work in connection with assaying. Accommodation for twenty-four students at a time is provided, by individual work desks, each supplied with a balance, weights, fluxes, tools, drawers and lockers. Common to both laboratories is the balance room which has a cement table on brick piers to support the bead balances. These are illustrative of the types met in practice. Adjoining the West laboratory is a research room. A store-room adjoins the East laboratory where fluxes, clay ware and extra parts are kept. In the instructor's room are stored a large number of ores and bullion, obtained chiefly from typical mining districts and metallurgical plants, for class use. The preparation of ores is done in the Milling building, where crushers, pulverizers and sampling devices are available. A special laboratory sampler has been constructed for the purpose of giving samples for the student's assays, of indisputable

similarity, thus confining variations in results to the students' work. Other apparatus includes Guss-Haultain stationary electrolytic outfits, King rotating electrolytic apparatus, microscopes, optical resistance and thermocouple pyrometers, hand and foot cupel machines, grinding plates and screens.

### MINING AND ORE DRESSING LABORATORY

A detached building 72 ft x 70 ft contains the Mining and Ore dressing equipment. It is heated, lighted and supplied with power from the central plant. It is divided into several parts, the larger being 72 ft x 53 ft by 22 ft high.

In this room is a 5-stamp battery with amalgamation plates, Wilfley table, Deister Flat-o table, Deister slime table, buddle, and classifiers of sufficient size to make tests on lots of from one to ten tons.

In addition are a set of small Wilfley tables, two 3-compartment jigs, a 2 ft x 3 ft tube mill, a small experimental tube mill, agitators, small classifiers and other testing apparatus for experimenting on the falling rates of ore particles, slime settling, surface tension and flotation processes. These include a Case machine, a K and K machine, a Ruth machine, a Callow cell, etc. Water is supplied from a tank in the roof. The machinery is all motor driven.

One portion of the room is devoted to rock drills of various types and other mining apparatus.

The other part of the building, 72 ft x 17 ft, is divided into several rooms and contains a Hadfield's Gyratory Crusher, 16 in x 12 in. Rolls, small crushers, screening machine, and sampling apparatus. The crushers are driven by a 30 h p motor in another room.

The other rooms contain a Wetherill magnetic separator, screen sets, a smelting equipment, workshop and storage for small lots of ore. The larger part of the ore supply is accommodated in bins outside the building.

The plant throughout is intended mainly for teaching and experimental purposes.

There has recently been added apparatus especially designed for research work in various phases of rock crushing and grinding—Ball Mills with plate glass ends for the study of ball paths, a small Ball and Rod Mill on ball bearings with dynamometer, a set of high grade miniature Rolls in ball bearings with integrating dynamometer.

### METALLURGICAL LABORATORIES

This laboratory, in the East end of the Mining building, occupies about 3,600 sq ft on the basement floor and the same space immediately above on the ground floor. The basement floor is divided into one large furnace room, a small hydrometallurgical room and two store-rooms. The furnace

room contains a motor driven Connersville blower, several gas fired furnaces, two small blast furnaces, and a small 6 hearth Wedge roasting furnace. The larger electric furnaces of the Department of Electrochemistry are in this room. Some are supplied with direct current, others with A C from a 200 K V A transformer. A system of flues, with hoods over all the furnaces, leads through a Cottrell precipitator of the Rathbun type taking current at 50,000 volts, to a stack through which gases are pulled by a fan in the attic.

The hydro-metallurgical room in addition to apparatus for leaching tests contains several natural draft furnaces, a large Hoskins resistance furnace and a 113 lb drop hammer. There are also tanks for electrolytic refining and precipitation of metals.

The upper floor is divided into laboratories, store rooms and offices. The laboratories are 1 Metallurgical analysis, 2 Heating treatment and pyrometry, 3 Grinding, polishing and etching, 4 Metallographic room with an adjoining dark room.

In the laboratory for metallurgical analysis the student is given some training in mill and smelter methods of analysis. It is well equipped for this work.

In the heat treatment and pyrometry laboratory are a number of tube furnaces of different sizes, a Leeds & Northrup transformation point indicator with furnace, double thermocouple and twin galvanometer, a Leeds & Northrup potentiometer pyrometer, a disappearing filament pyrometer, and many thermocouples for use with galvanometer or potentiometer. For grinding and polishing there is provided two motor driven emery wheels and a set of 3 motor driven horizontal polishing plates.

The metallographic room is equipped with one horizontal photo micrographic instrument made by Pellin Paris, one vertical photo micrographic apparatus by Bausch & Lomb and two other Bausch & Lomb metallographic microscopes.

There are also a Pellin instrument for the determination of critical points by photography according to the Saladin method and a Leeds & Northrup type "K" precision potentiometer, which is also used for the determination of critical points.

### MECHANICS OF MATERIALS LABORATORY

This laboratory is available for the scientific and commercial testing of materials of construction such as iron, steel, timber, concrete and masonry.

It is supplied with the following:

An Emery 50-ton hydraulic machine, built by Wm Sellers & Co, of Philadelphia, for making tests in tension and compression.

A 100-ton screw power machine, built by Riehle Bros, Philadelphia. It is designed for making tests in tension, compression, shearing and cross-breaking, and will take in posts 12 feet long and beams up to 18 feet in length.

A Riehle 10-ton screw power universal testing machine

A Riehle 50-ton screw power universal testing machine

A Riehle 50-ton hydraulic testing machine intended especially for testing concrete blocks

A Riehle standard brick rattler

A 15-ton single lever-machine, built by J. Buckton & Co., Leeds, England

A torsion machine, built by Tinius Olsen & Co., Philadelphia, for testing the strength and elasticity of shafting. This machine will twist shafts up to 16 feet in length and 2 inches in diameter.

A hand power torsion machine of simple mechanical construction, specially designed for the testing of short shafts of a maximum diameter of one inch.

A Riehle transverse testing machine of 5,000 pounds capacity, adapted to specimens up to 48 inches in length.

A Riehle compressometer, with spherical seat attachment for the adjustment of specimens having slightly non-parallel faces. This compressometer will receive specimens up to 10 inches in length.

An Olsen compression micrometer of standard type

A 20,000 pound Olsen, hand power, wire testing machine, specially fitted for testing wooden columns with both fixed and pivoted ends.

An Olsen combined tension and cantilever type impact testing machine.

An Olsen, 20,000 pound, hand power testing machine especially adapted for testing long columns.

An Olsen, 200 pound capacity, textile testing machine

A Riehle abrasion cylinder, built to the standard required by the National Brickmaker's Association, adopted in 1901.

A Berry strain-gauge for spans of 3 inches and 8 inches.

A Nalder dividing engine. This may be used either for the precise division of scales or for the calibration of instruments intended for refined measurements.

A Brinell hardness testing machine

A Shore scleroscope for testing hardness

A large number of extensometers of the usual degree of precision. These include the Bauschinger, Martens, Unwin, Ames, Riehle, Johnson, Henning (recording) and other types. In addition there are the usual scales, micro-meters, telescopes and reflectors, voltmeters for the determination of metallic contact, and such other appliances as are necessary in the making of precise measurements.

The shop is equipped with a number of high-class machine tools specially fitted for reducing the specimens to the requisite shapes and dimensions with a minimum of hand labour. It is also supplied with the necessary appliances for making ordinary repairs and for making apparatus for special experiment and original investigation.

## HIGHWAY LABORATORY

## ROAD METALS

This laboratory is equipped for carrying out investigations in the various materials employed in highway construction and maintenance, and comprises the following

Page impact machine for testing the toughness of road materials

Diamond core drill for preparing specimens for the toughness test

Deval abrasion machine for testing the resistance to wear of road materials

Cementation testing apparatus (Page type) for determining cementing properties of road materials

Jaw crusher (Mitchell type) for crushing rock for various tests

Power driven agitator with sieves for the mechanical analysis of sand, gravel and crushed rock

Dorry hardness testing machine for determining the hardness of rock used in road construction

## BITUMENS

This laboratory is designed for the investigation of the physical rather than the chemical properties of bitumens used in road construction and maintenance. The equipment consists of an extractor for separating bitumens and aggregates, an Engler viscosimeter, a penetration apparatus as well as appliances for determining melting point, volatilization, specific gravity, ductility, etc.

## LABORATORY OF ONTARIO BOARD OF HEALTH

Through the courtesy of the Secretary of the Provincial Board of Health for Ontario the facilities of the excellently equipped laboratory which the Board maintains at Stanley Park have, with certain conditions, been placed at the service of the University for the investigation of problems of interest to the sanitarian and the sanitary engineer. The equipment consists of various types of sewage sedimentation tank, sewage filter, sewage measuring devices, aerators, sterilizing appliances and a complete and representative plant intended for the filtration and sterilization of water by practically all known methods.

## CEMENT TESTING LABORATORY

This laboratory is fitted with all the ordinary moulds, sieves, balances, burettes, steaming and drying tanks, tables, and other appliances necessary in making the usual physical tests of a Portland cement. It is also supplied with completely equipped cabinets for individual work. In addition there are the following

A 2,000 lb Riehle shot machine for tension

A 2,000 lb Fairbanks shot machine for tension

A 1,000 lb Olsen automatic shot machine fitted for tests in either tension or cross breaking

An Olsen soapstone moist closet of modern design

### METROLOGICAL LABORATORY

The department of surveying and geodesy is provided with all the ordinary field instruments, such as transits, levels, compasses, micrometers, sextants, planimeters, plane tables, tapes, chains, etc., with which is carried on the instruction in practical field operations as detailed elsewhere

A small laboratory is also established in the basement of the observatory described below, containing the necessary instruments for the refined measurements of geodetic surveying, as, a standard yard and metre, a Rogers 10-foot comparator, an invar base measuring apparatus, a Kater's pendulum with vacuum chamber, a level trier, micrometer microscopes, etc

The geodetic observatory in connection with this department is used for the instruction of students of the Fourth Year in taking observations for time, latitude, longitude, and azimuth by the precise methods used in connection with a geodetic survey. It contains a 10-inch theodolite and zenith telescope by Troughton & Simms, an astronomical transit instrument and an 8-inch theodolite by Cooke, two electro-chronographs, a Howard astronomical clock, a Dent sidereal clock, a Dent sidereal break-circuit chronometer, a wireless receiving instrument, arithmometers, etc

### GEOLOGICAL AND MINERALOGICAL LABORATORIES

In the Chemistry and Mining building on College Street the University possesses a modern laboratory for Geology and Mineralogy

Courses are given in laboratory work, especially in personal examination of type sets of rocks, fossils, minerals and crystal models. These laboratory exercises serve to illustrate the introductory didactic instruction

For the encouragement of pure crystallography the laboratories are supplied with goniometers of the various types, crystal models, appliances for the cutting of oriented crystal sections and for the physical examination of the same. Practical petrography is carried on in rooms provided with type sets of rocks, both macroscopic and microscopic. Advanced students are taught to make thin sections of rocks and fossils and to study them microscopically. For students in Mining a laboratory course in the interpretation of geological maps and section is provided. Typical mining regions are studied in detail and an opportunity is afforded for the examination of specimens illustrating economic geology

The laboratory for the preparation of thin sections of rocks, minerals and fossils is provided with electric diamond saws and grinding appliances for the various types of work incidental to the preparation of thin sections and museum material

A room is also provided for advanced work in cartography and geological surveying

The departments possess 28 petrological microscopes and 5 of other types, so that it is now possible to provide advanced students with instruments and sets of thin sections for their own especial use. The blowpipe laboratory contains 156 lockers, especially designed for apparatus for students. Provision is made for the study of opaque minerals in reflected light.

FACULTY OF HOUSEHOLD SCIENCE

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## HONOUR COURSE FOR THE DEGREE OF BACHELOR OF HOUSEHOLD SCIENCE

Courses for the degree of Bachelor of Household Science have been arranged to provide opportunities for the study of Household Science for candidates who have not had courses in Latin. Others who have met the requirements for entrance are also eligible for admission.

**ENTRANCE REQUIREMENTS** Pass Matriculation in English, History, Mathematics, Experimental Science, and two of Greek, Latin, German, French, Italian or Spanish, Household Science (an approved examination course), and in addition Honour Matriculation in English, Mathematics (Algebra and Geometry), French or German, and one of a second language, History or a science.

### FIRST YEAR

English 1a, 1b, p 80	2	hours
One of French 1b, p 95	2	"
German—Special First Year Course similar to French 1b	2	"
*Chemistry 1, 13, pp 147, 148	6½	"
*Physics 28, p 132	4	"
*Zoology 5, 6, p 136	3¼	"
*Household Science	4	"

### SECOND YEAR

Two of History 2b, p 100	2	hours
English 2a, 2b, p 89	2	"
Political Economy 2e, p 109	2	"
*Chemistry 3, 15, part, p 148	4	"
*Zoology 10, p 136	2	"
*Botany (Bacteriology) 13, p 141	2	"
*Physiology 9, p 146	1	"
*Household Science 2, p 153	10	"

### THIRD YEAR

One of English 3a, 3b, p 89	3	hours
Political Economy 4h, p 112	3	"
Philosophy (Social Ethics) 3a, pp 115, 116	3	"
*Biochemistry 1, 3, p 144	7	"
*Household Science 3b, p 153	14	"
*Hygiene and Sanitation	1	"

### FOURTH YEAR

*Household Science 4b, 4c, 4d, p 153	10	hours
*Food Chemistry 1, 2, p 145	8	"
*One of Household Science	4	"
and Food Chemistry	4	"
or Household Science (Textiles)	8	"

The numerals in the above refer to the corresponding numbers of the courses on the pages indicated in the Calendar of The Faculty of Arts for 1924-25

\*Honours

# PASS COURSE FOR THE DEGREE OF BACHELOR OF HOUSEHOLD SCIENCE

ENTRANCE REQUIREMENTS Pass Matriculation in English, History, Mathematics, Experimental Science, and two of Greek, Latin, German, French, Italian or Spanish, Household Science (an approved examination course)

A candidate who has completed the First Year in the Faculty of Arts may enter at the Second Year

## FIRST YEAR

English 1a, 1b, p 89	2 hours
One of French 1a, p 85	4 "
German 1a, p 92	4 "
Mathematics 1a, 1b, p 123	2 "
Physics 28, p 132	4 "
Household Science	3 "

## SECOND YEAR

Two of English 2a, 2b, p 89	2 hours
French 2a, p 95 or German 2a, p 92	3 "
History 2a, 2b, p 100	3 "
Political Economy 2e, p 109 or Philosophy 2a, p 115	3 "
Chemistry 1, 14, pp 147, 148	4 "
Zoology 10, p 136	2 "
Botany (Bacteriology) 13, p 141	2 "
Physiology 9, p 146	1 "
Household Science	4 "

## THIRD YEAR

One of English 3a, 3b, p 89	3 hours
Political Economy 3e, p 110	3 "
Philosophy (Social Ethics) 3a, pp 115, 116	3 "
Chemistry 3, p 148	2 "
Food Chemistry	4 "
Hygiene and Sanitation	1 "
Household Science	9 "

## FOURTH YEAR

Biochemistry 1, p 144	3 hours
Food Chemistry	6 "
Household Science	11 "

For the graduate of Macdonald Institute who has complied with the entrance conditions and has also completed the First Year of the Faculty of Arts, or its equivalent, an effort will be made to permit her to meet the remaining conditions for the degree of Bachelor of Household Science in one additional academic year



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THE ONTARIO COLLEGE OF EDUCATION

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## THE ONTARIO COLLEGE OF EDUCATION

### GENERAL INFORMATION

The Ontario College of Education is the University's professional school of education. It trains candidates for diplomas and certificates as teachers and in particular for Provincial certificates as teachers of Art, Household Science, and Physical Culture, as High School Assistants and Specialists and as First Class Public School teachers. It also offers courses for the B Paed, and D Paed degrees.

The buildings of the Ontario College of Education on Bloor Street contain well-equipped and well-ventilated lecture-rooms, laboratories, and reading-rooms for the accommodation of the students, and model class-rooms for observation and practice-teaching. So far as necessary the observation and practice-teaching are supplemented by observation and practice-teaching in schools in the neighbourhood.

While the chief exercises of the Ontario College of Education will be conducted in the buildings on Bloor Street, the students may use the University's library, gymnasium, athletic fields, etc., under such conditions as obtain with other students. They will also be admitted free to the Royal Ontario Museum, Bloor Street, from 9 a.m. to 5 p.m., on presentation of their registration cards. Thus, while they are subject to the same regulations, they enjoy all the privileges of the other University students.

### BOARD AND LODGING

The Secretary of the Ontario College of Education and the Secretary of the Christian Association of the University will forward accredited lists of boarding-houses on request.

### COURSES

The following courses are offered:

I. Courses for (1) Interim Ordinary High School Assistants' and High School Specialists' certificates with Interim First Class Public School certificates or Elementary certificates in Physical Culture and Art, (2) Ordinary certificates as teachers of Household Science.

II. Courses for the B Paed degree.

III. Courses under the School of Graduate Studies for the degrees of D.Paed, M.A. and Ph.D.

## I

COURSES FOR INTERIM ORDINARY HIGH SCHOOL ASSISTANTS' AND HIGH SCHOOL SPECIALISTS' CERTIFICATES WITH INTERIM FIRST CLASS PUBLIC SCHOOL CERTIFICATES OR ELEMENTARY CERTIFICATES IN PHYSICAL CULTURE AND ART, AND FOR ORDINARY CERTIFICATES AS TEACHERS OF HOUSEHOLD SCIENCE

## SESSIONS

1 Enrolment in classes of the regular session will begin Tuesday, September 30th, and the instruction will begin October 1st, at 10 a.m. The Autumn Term will end December 19th, at 1 p.m., and the Easter Term will begin January 6th, at 9 a.m. The Spring Term will begin April 20th and end June 19th.

## DUTIES OF STUDENTS

2 (1) Regular attendance on the part of candidates for Provincial certificates is indispensable, except for such as are exempt from attendance under the regulations of the Department of Education, and for such as are experienced teachers and are permitted by the Dean to act, after Christmas, for not more than a total of one fortnight, as substitute teachers in the schools of Ontario. A return of the attendance of each student will be made to the Minister of Education at the close of the session.

(2) Students whose class-work shows them to be unduly deficient in scholarship, or whose conduct or progress is unsatisfactory, may be dismissed from attendance by the Dean at any time during the session.

(3) On the Dean's report to the Minister of Education as to the physical unfitness of a student for training for a Provincial certificate as a teacher, the Minister may require a special medical examination of such student, and, as a result thereof, may direct that his registration for such training be cancelled.

## STUDENT SOCIETIES

3 Various religious, athletic, literary and dramatic associations are formed each session. For professional improvement all students are required to share in the activities of the literary and dramatic associations.

## APPEALS

4 The answer papers of the final examinations of all unsuccessful candidates for Provincial certificates are re-read by the examiners, and

the results of the first reading reconsidered before a decision to reject is reached. Despite this fact any unsuccessful candidate may have his case considered a third time if within two weeks after the announcement of the results he lodges with the Minister of Education his appeal, with a statement of the grounds on which it is based, and with a fee of \$2.00. If made within the two weeks following, the fee will be \$5, and no appeal will be entertained thereafter. The fee will be refunded if the appeal is sustained.

## COURSE FOR INTERIM ORDINARY HIGH SCHOOL CERTIFICATES

### PURPOSE

5 The Course for Interim Ordinary High School certificates prepares candidates therefor in the theory and art of organizing, governing, and instructing pupils in the Continuation Schools, Grades A and B, and in High Schools

### CONDITIONS OF ADMISSION

6 (1) Except as provided in (2) below, an applicant for admission to the course for an Interim Ordinary High School Assistant's certificate should make application not later than September 30th, to the Secretary of the Ontario College of Education on a form to be obtained from him and should submit with this application, on official forms also to be supplied by the Secretary

(a) A certificate from the Deputy Registrar-General of Births, Parliament Buildings, Toronto, or an affidavit by one of the parents or other relative, or other person cognizant of the fact, that the applicant will be at least 20 years of age before October 1st, 1924

(b) A certificate from a clergyman or other competent authority that he is of good moral character

(c) A certificate from a duly qualified medical practitioner that for the purposes of this certificate he has made a careful examination of the applicant, and certifies as follows (i) that he is free from heart disease or any other serious organic affection, (ii) that he is free from pulmonary affection, defective hearing, or seriously defective eyesight, or abnormal conditions of appearance which would interfere with his work as a teacher, and (iii) that in other respects also he is physically able for the work of a teacher as prescribed in the courses of study of the Ontario College of Education and of the Provincial Schools represented in the certificate for which he is a candidate (See also Section 2 (3))

(d) An agreement, if successful in obtaining a teacher's certificate, to teach thereon in Ontario, for at least the first year of his subsequent teaching experience

NOTICE — *A violation of this agreement will render the certificate invalid*

(e) A certificate from a competent authority that he is a British subject

(f) His certificate of graduation as Bachelor or Master of Arts, Bachelor or Master of Science, Bachelor of Commerce, Bachelor of Agriculture, or Bachelor of Applied Science, from a British university, after a regular



COURSE FOR INTERIM ORDINARY HIGH SCHOOL—*Cont*

university course approved by the Minister of Education as to entrance requirements and as to content of the undergraduate courses. Each applicant must have Upper School or Honour Matriculation standing in English, History and Mathematics or the equivalent of such standing.

(2) An applicant for admission to this course who is not a candidate for the certificate of the Ontario Department of Education must comply with such conditions of admission as the Council of the Ontario College of Education may determine.

(3) Applications, by students not in attendance, for admission to the examinations should be made, at least one month before the examinations begin, to the Secretary of the Ontario College of Education, University of Toronto, on an official form to be obtained from the Secretary.

7 The annual fee for the Course for Interim Ordinary High School Assistants' certificates, which includes the library and examination fees, is \$25 00. The fee for the examination in the Course for Interim High School Assistants' certificates when the examination is taken by students not in attendance, will be \$15 00, or \$10 00 for Part I and \$5 00 for Part II, or in the case of partial examination, \$2 00 per subject. The fee for the University diploma will be \$2 00. A library deposit of \$1 00 will be required of all students, and a fee of \$8 00 for membership in Hart House of all male students. All students will be required to become members of the respective Students' Administrative Councils, and the women students who take the classes in Physical Culture to become members of the Women's Athletic Association.

## TEXT-BOOKS

8 The text-books for the academic work are those prescribed for the Lower and Middle Schools of the High Schools of Ontario in each subject of the student's course.

For Observation and Practice-teaching students should supply themselves with copies of the text-books authorized for use in the above-named grades of schools. They should also supply themselves with the professional text-books whose titles appear in italics in the lists given below under each subject.

## PROGRAMME OF STUDIES

9 (1) The course of training for Interim Ordinary High School Assistants' certificates consists of two parts as follows:

Part I. The Science of Education, School Management and Law, English, History, Geography, *and* (a) Latin, and French or German or Spanish or Greek *or* (b) Mathematics and Science.

Part II. Observation and Practice-teaching.

## COURSE FOR INTERIM ORDINARY HIGH SCHOOL—*Cont*

(2) Students in attendance in the Interim Ordinary High School Assistants' course *may* also take the course in Vocal Music, and, if they possess the required academic qualifications, a Specialist's course, and *must* also take *either* the course for the First Class Public School certificate *or* the course for the Elementary certificate in Physical Culture *or* the course for the Elementary certificate in Art

### ORGANIZATION OF COURSE

10 (1) The following introductory work will be taken up at the beginning of the session

(a) About 20 lectures upon the General Method of the Recitation in the Science of Education

(b) Supervised Observation and Practice lessons (about 10 of each) in the different grades or forms of the High Schools

(2) The instruction in the special methodology of the subjects of the High School courses will be accompanied by a review from the academic standpoint of such portions of each subject as may be necessary to determine the scholarship of the students and to illustrate the methods of instruction in that subject, dealing in particular with those parts of the course that are difficult of presentation

(3) So far as the conditions permit the programme of instruction will be organized on the basis of intensive study of a few subjects at a time

(4) (a) The lectures will be distributed among the various prescribed subjects approximately as follows The Science of Education 100, School Management and Law 50, English 90, History 20, Geography 15, Mathematics 80, Latin 50, French or German or Spanish or Greek 40, Science 40, Vocal Music 30

(b) The courses in Mathematics, English, and Vocal Music will begin at the opening of the session and will continue until the close, those in the other subjects will be given, as far as practicable, in correlation with the Observation and Practice-teaching and will continue until completed

(c) The Observation work will begin in the third week of the session, and the Practice-teaching in the fifth week Exclusive of the introductory work, the programme of instruction will include for each student at least 50 Observation lessons and 30 Practice-teaching lessons These numbers may be increased to meet the needs of individual students

COURSE FOR INTERIM ORDINARY HIGH SCHOOL—*Cont*

## OBSERVATION AND PRACTICE-TEACHING

11 (1) The introductory course defined herein will be followed by systematic Observation and Practice-teaching, under the general supervision of the lecturers in the Ontario College of Education

(2) (a) The Observation and Practice-teaching lessons for each student will be arranged to represent as far as practicable the work in all forms and grades of the Lower and Middle Schools of the High Schools. There will also be Observation in the Upper School of the High School

(b) So far as practicable continuous Practice-teaching for several periods will be required, the students being wholly responsible for the management of the classes

(3) Students will be notified of the subject and scope of the Observation lesson, and should prepare the lesson beforehand. After observing the lesson they will discuss it with the teacher or lecturer concerned

(4) Students will be notified of the subject and the scope of the practice-teaching lesson by the teacher concerned, and will prepare a plan of each Practice-teaching lesson for submission to the teacher

(5) (a) Model lessons will be taught by the teachers of the Practice-schools in accordance with the regular programme of said schools

(b) The lecturers of the Ontario College of Education will develop the details of their subjects in the teaching order, and after each suitable step, will also themselves teach model lessons in special classes and in the practice schools

(6) (a) The necessary applications of the Science of Education and of Special Methods will be made systematically in connection with the Observation lessons and the Practice-teaching, so that the course may be taken up in terms of the pupil's mind and growth. Throughout the course the instructor in the Science of Education will himself illustrate by actual teaching the principles he has discussed in class

(b) As far as practicable, the lecturers of the Ontario College of Education will be present at the Observation lessons and Practice-teaching of the students and will make jointly the criticism and valuation of their work

## EXAMINATIONS

12. (1) For the purpose of determining the final standing of students the courses are classified into the following subjects

Part I Science of Education, School Management and Law, English, History, Mathematics, Geography, Latin, French, German, Spanish, Greek, Science, Vocal Music

Part II Observation, Practice-teaching

## COURSE FOR INTERIM ORDINARY HIGH SCHOOL—*Cont*

(2) (a) The final standing of students in attendance will be determined by the combined results of the sessional records and the records of the final examinations in the subjects of Part I, and by the results of the records of the Observations and Practice-teaching of Part II

(b) The sessional records represent oral and written exercises, practical work, practice in making examination papers, and in valuing the answer-papers of pupils, and such other tests as the staff may prescribe

(c) At the close of each term there will be final examinations in such courses of Part I as have been completed in the term

(d) At the examinations in Part I, each paper will contain questions in methodology, based upon the academic subjects, which will test the candidate's academic knowledge and, if his sessional records and his answers to these questions show that his academic knowledge is defective, he will be rejected on this ground alone

(e) The maximum marks assigned to each subject in Part I will be 100 In all subjects except Vocal Music, a maximum of 40% of the marks will be assigned to the sessional records and 60% to the final written examinations In Vocal Music a maximum of 50% of the marks will be assigned to the sessional records and 50% to the final written examinations

(f) A maximum of 800 marks will be assigned to Practice-teaching and of 400 to Observation The standing of the student in Observation and in Practice-teaching will be based upon his sessional records in the lessons following those which form part of the introductory courses

## CERTIFICATES

13 (1) A student who obtains 50% of the marks in each of the required subjects of Part I and 60% of the aggregate of the marks in each of the divisions of Part II, may, on the recommendation of the examiners, be awarded by the Minister of Education, an Interim Ordinary High School Assistant's certificate

(2) A student who passes in Part II and fails in not more than two of the obligatory subjects of Part I will be exempted from further attendance

(3) All other students who have failed to obtain the necessary final standing will be required to attend another session, beginning after the Christmas vacation

(4) (a) (i) Candidates who are exempted from attendance at the Ontario College of Education, as provided in (2) above, may complete their standing for a certificate by re-writing, at one annual examination, or, separately, at different annual examinations, the examination in the subject or subjects in which they failed

COURSE FOR INTERIM ORDINARY HIGH SCHOOL—*Cont*

(ii) Candidates who failed at an examination under former Regulations and who were exempted from subsequent attendance at the Ontario College of Education will take, not later than a date determined in each case by the Minister of Education, the final examination papers as prescribed herein but their standing will be determined in the subjects as constituted under the Regulations in force when they first wrote

(iii) Candidates who have been exempted by the Minister of Education from attendance at the Ontario College of Education on account of equivalent training in other provinces or countries, and who are required to write on the final examinations of the Ontario College of Education will take the prescribed final examinations in the subjects of Part I, and will also satisfy the examiners by teaching and other tests that they are competent for the work in the subjects covered by the certificate for which they are candidates

(b) (i) The pass standard for candidates exempt from attendance will be the same as that for candidates in attendance but no allowance will be made for sessional work, if any, in the case of candidates not in attendance

(ii) The final examinations in Vocal Music for students exempt from attendance, will include both a practical and a written test, 50 marks being assigned to the written test and 50 to the practical test

(c) (i) Candidates exempt from attendance shall take their practical tests in Part II at such times during the session as may be agreed upon with the examiners. They shall take their examinations in the subjects of Part I in June on dates to be determined by the examiners or, in part, in June and, in part, at such times during the session as are set apart for the examination of students in attendance

(ii) Students exempt from attendance may take their written examinations in Part I at Toronto, or at such local centres and under such conditions as may be determined by the Senate. They must, however, take their practical tests in Vocal Music, and in Teaching at Toronto

(5) (a) Candidates who hold First Class Public School certificates, with the academic standing required for admission to the High School Assistants' Course and who submit certificates of at least one year's successful experience in a Continuation School from the Inspector or Inspectors under whom they have taught will be exempted from the attendance, excepting for the Spring Term, but will take the final examinations prescribed for Part I, and must also satisfy the examiners by practical tests that they are able to teach the subjects of the High School courses

(b) Other candidates who hold a First or a Second Class certificate with the academic standing required for admission to the High School

COURSE FOR INTERIM ORDINARY HIGH SCHOOL—*Cont*

Assistants' Course will be exempted from attendance during the Autumn Term, but will take the final examinations prescribed for Part I and must also satisfy the examiners by practical tests that they are able to teach the subjects of the High School courses

## DIPLOMAS

14 Successful candidates who are awarded Ordinary High School certificates by the Minister of Education and such other successful candidates as may be admitted to the course under section 6 (2), may be awarded University diplomas

## COURSES FOR HIGH SCHOOL SPECIALISTS' CERTIFICATES

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### PURPOSE

15 The courses for Interim High School Specialists' certificates prepare candidates therefor in the theory and art of organizing and instructing the pupils of the High Schools and Collegiate Institutes, in certain departments or subjects of the courses of said Schools

### CONDITIONS OF ADMISSION

16 (1) Applicants for admission to the courses for Interim High School Specialists' certificates, or to the final examinations for said certificates, must also be applicants for admission to the courses for Interim Ordinary High School Assistant's certificates, or must be applicants for admission to the examinations therefor without attendance throughout the session, or must already hold Ordinary High School Assistant's certificates. No candidate will be awarded an Interim High School Specialist's certificate or receive credit towards said certificate *before* he has been awarded an Interim Ordinary High School certificate

(2) (a) A candidate for an Interim High School Specialist's certificate who is also a candidate for admission to the course for an Interim Ordinary High School Assistant's certificate, must comply with the conditions for admission prescribed for candidates for Interim Ordinary High School Assistants' certificates, and must also have his academic standing as a specialist approved by the Minister of Education before he will be admitted to said specialist course or to the examinations for the specialist certificate

(b) A candidate for an Interim High School Specialist's certificate who holds an Ordinary High School Assistant's certificate, must have his academic standing as a specialist approved by the Minister of Education before he will be admitted to the examinations for the specialist certificate

### FEES

17 When an Interim High School Specialist Course is taken concurrently with the Course for an Interim Ordinary High School certificate, or when an Interim High School Specialist examination is taken concurrently with the examination for an Interim Ordinary High School certificate, there is no additional fee. The fee for a specialist course or examination, one or both, taken apart from the course or examination for an Interim Ordinary High School certificate, will be \$5 00 per course or per examination, one or both, as the case may be

COURSES FOR HIGH SCHOOL SPECIALISTS—*Cont*

## COURSES

18 (1) Courses will be offered for Interim High School Specialists' certificates in Agriculture, Classics, Commerce, English and French, English and History, French and German, French and Spanish, Mathematics, Mathematics and Physics, Moderns and History, Science, and Household Science

(2) Each specialist course will consist of at least two seminar-periods per week throughout the session, and of special Observation and Practice-teaching in the specialist department in which the candidate is an applicant for a certificate

## TEXT-BOOKS

19 Students in the courses for High School Specialists' certificates will supply themselves with such special professional text-books as may be recommended by the instructors from the lists given under the details of each course. The other books and journals, whose names appear in these lists, may be consulted in the library of the Ontario College of Education

## EXAMINATIONS

## SUBJECTS AND STANDARDS

20 (1) Subject to the condition that no student may be awarded an Interim High School Specialist's certificate who does not already hold or is not also awarded an Interim Ordinary High School Assistant's certificate, the final standing of students in attendance in a specialist course will be determined by the records of the Observation and Practice-teaching in the department or subject concerned, and by the combined results of the sessional records and the records of the final examinations in the same department or subject. The sessional records represent oral and written exercises, practical work, practice in preparing examination papers, and in valuing the answer-papers of pupils, and such term work as the instructors may prescribe. The records of the final examinations will be based upon two examination papers taken in each department at the close of the session. The maximum marks represented in the Observation and Practice-teaching will be 100, in the sessional records 40, and in the final written examinations of the department or subject 60

(2) The final standing of students not in attendance will be determined by the final written examinations and by teaching in the department concerned. For this purpose the maximum of marks in each case will be 100



COURSES FOR HIGH SCHOOL SPECIALISTS—*Cont*

## CERTIFICATES

21 (1) On the recommendation of the examiners the Minister of Education may grant Interim High School Specialists' certificates to students in attendance who have fulfilled the conditions of the course for Interim Ordinary High School certificates, who in their specialist department have obtained (a) 60% of the aggregate of marks represented in the sessional records and the records of the final examinations and (b) 60% of the marks assigned to the Observation and the Practice-teaching.

(2) On the recommendation of the examiners the Minister of Education may grant Interim High School Specialists' certificates to students exempt from attendance who hold or are awarded Ordinary High School certificates, who hold also the necessary academic certificates as specialists, and who obtain 60% of the marks assigned to the written examinations and to the Practice-teaching, respectively, in the specialist course concerned.

(3) (a) For students not in attendance the written examinations in the courses for Interim High School Specialists' certificates will be held at the end of the session at Toronto or at such local centres and under such conditions as may be determined by the Senate.

(b) For students not in attendance the practical examinations will be held at Toronto, except in the case of those to whose competency the visiting Provincial Inspector certifies, after due notification to such Inspector by the candidate of the latter's intention to become an applicant for a specialist's certificate.

## COURSES FOR FIRST CLASS PUBLIC SCHOOL CERTIFICATES

## PURPOSE

22 The course for First Class Public School certificates prepares candidates therefor in the theory and art of organizing, governing, and instructing the pupils of the Public, Separate, and Continuation Schools

## CONDITIONS OF ADMISSION

23 Applicants for admission to the course for Interim First Class Public School certificates or to the final examinations for said certificates must comply with the conditions of admission prescribed for candidates for Interim Ordinary High School Assistants' certificates No candidate will be awarded an Interim First Class Public School certificate or receive credit towards said certificate *before* he has been awarded an Interim Ordinary High School Assistant's certificate

## FEES

24 When an Interim First Class Public School course is taken concurrently with the course for an Interim Ordinary High School certificate, or when the examination for an Interim First Class Public School certificate is taken concurrently with the examinations for an Interim Ordinary High School Assistant's certificate, there is no additional fee The fee for a First Class Public School course or for the examinations of said course taken by one who already holds an Interim Ordinary High School Assistant's certificate will be \$5 00 for the course or for the examinations, one or both, as the case may be, or \$2 00 for each examination paper

## TEXT-BOOKS

25 The text-books for the academic work of the course for Interim First Class Public School certificates shall be those prescribed in each subject for the High, Public and Separate Schools The text-books for the professional work shall be those whose titles are printed below in *italics*

## PROGRAMME OF STUDIES

26 (1) The course of training, which is supplementary to the course of training for Interim Ordinary High School certificates, includes the following subjects

Part I Primary Reading and Spelling, Composition (including stories and biographies from History), Arithmetic, Primary and Advanced,

COURSES FOR FIRST CLASS PUBLIC SCHOOL—*Cont*

Algebra, Geometry, two of Latin, French, German or Spanish, Greek, Biology, Physics and Chemistry, Elementary Science, Nature Study, Agriculture and Horticulture, Writing, Music, Art, Hygiene, Physical Culture, Manual Training, Household Science (for women), as defined in the Ontario Normal School courses for Interim First Class Public School Certificates

Part II Observation and Practice-teaching—at least thirty observations and fifteen practice lessons—to be conducted under conditions defined in Ontario Normal School courses for Interim First Class Public School certificates

(2) To the instruction in the subjects of the course will be allotted a maximum of two hundred lecture periods

## MODIFICATIONS OF COURSES

27 (1) Students who take the Latin, French, German or Spanish, Greek, or Music of the Interim Ordinary High School Assistant's course will be exempted from the corresponding subjects of the Interim First Class Public School course. Similarly those who take the Mathematics of the Interim Ordinary High School Assistant's course will be exempted from Advanced Arithmetic, Algebra and Geometry, and those who take Science from Elementary Science, Biology and Physics and Chemistry

(2) Students who hold Provincial professional certificates in Physical Culture, Writing, Music, Art, Manual Training, or Household Science will be exempted from the examinations thereon but will take the Observations and Practice-teaching therefor

(3) Candidates who hold Provincial Second Class Public School certificates and who take Latin and a second language as the option of the Interim Ordinary High School Assistants' course will be exempted from the instruction and examinations in all subjects of the Interim First Class Public School course except Advanced Arithmetic, Algebra and Geometry, Elementary Science, Agriculture and Horticulture, and Hygiene, while those who hold Provincial Second Class Public School certificates and take Mathematics and Science as the option will be exempted from the instruction and examination in all subjects of the Interim First Class Public School course except Agriculture and Horticulture, and Hygiene

## EXAMINATIONS

28 (1) Subject to the condition that no student may be awarded an Interim First Class Public School certificate who does not already hold, or is not also awarded an Interim Ordinary High School Assistant's certificate, the final standing of the students in attendance in the course for Interim First Class Public School certificates will be determined by the records of the Observation and Practice-teaching and by the combined results of

COURSES FOR FIRST CLASS PUBLIC SCHOOL—*Cont*

the sessional records and the records of the final examinations in said course. Subject to the same condition, the final standing of candidates not in attendance will be determined by the records of the final written examinations and of practice-teaching.

(2) The examinations in the subjects of the course for Interim First Class Public School certificates shall be conducted, *pari passu*, in the terms and under the conditions set out in the Calendar of the course for Interim First Class Public School certificates of the Ontario Normal Schools.

## CERTIFICATES

29 (1) (a) Subject to the conditions of Sec 28 (1), a candidate who obtains 50% of the marks in each subject of the course for Interim First Class Public School certificates and 80% of the aggregate of the marks in each of Observation and Practice Teaching may, on the recommendation of the examiners, be awarded by the Minister of Education, an Interim First Class Public School certificate.

(b) Subject to the same conditions, a candidate who passes in Observation and Practice Teaching and fails in not more than three subjects and who does not receive less than 45% in any subject, may, on the recommendation of the examiners, be granted by the Minister an Interim Second Class Public School certificate.

(c) Subject to the same conditions, a candidate who passes in the Observation and Practice-teaching and fails in not more than three subjects may be exempted from further attendance and may complete his course for an Interim First Class Public School certificate by rewriting at one annual examination, or, separately, at different annual examinations, the examinations in the subject or subjects in which he failed.

(2) All candidates other than those referred to in (b) and (c) who have failed to obtain the necessary final standing will be required to attend another session, beginning after the Christmas vacation.

(3) Regulations 13, (4) (i), (ii), (iii), (b) (i), (c) (i), (ii), which apply to candidates for Interim Ordinary High School Assistants' certificates who are exempt from attendance apply also, *pari passu*, to candidates for Interim First Class Public School certificates who are exempt from attendance.

## COURSES FOR ELEMENTARY CERTIFICATES IN PHYSICAL CULTURE AND IN ART

### PURPOSE

30 The courses for the Elementary certificates in Physical Culture and Art prepare candidates therefor in the theory and art of organizing, governing, and instructing in Physical Culture and Art the pupils of Continuation and High Schools

### CONDITIONS OF ADMISSION

31 Students who have been admitted to the course for Interim Ordinary High School certificates will take also either the course for an Interim First Class Public School certificate or the course for the Elementary certificate in Physical Culture or the course for the Elementary certificate in Art

### FEES

32 As the course for the Elementary certificate in Physical Culture or in Art may be an obligatory part of the course for the Interim Ordinary High School Assistant's certificate, no additional fee is required

### TEXT-BOOKS

33 Students in the courses for Elementary certificates in Physical Culture or Art will supply themselves with such text-books as may be recommended by the instructors from the lists given under the details of those subjects

### PROGRAMME OF STUDIES

34 (1) The subjects of the course for Elementary certificates in Physical Culture or in Art are to be found on pages 41-44

(2) To the instruction in the subjects of the course in Physical Culture or in Art will be allotted a maximum of one hundred and twenty lecture periods

### EXAMINATIONS

35 (1) The final standing of candidates for the Elementary certificate in Physical Culture or in Art will be determined by the results of the sessional work, final practical tests, and final written examinations

(2) (a) The following is the scheme of examinations and tests in Physical Culture

# COURSES FOR ELEMENTARY CERTIFICATES IN PHYSICAL CULTURE AND ART--*Continued*

## *Written Examinations*

Anatomy 100, Physiology and First Aid 100

## *Sessional and Final Practical Tests*

FOR WOMEN Calisthenics 200, Apparatus 50, Games and Military Drill 200, Swimming 50

FOR MEN Calisthenics 100, Apparatus 200, Indoor Games and Athletics 100, Swimming 50

Fifty per cent of the marks in each of the practical examinations will be assigned to the sessional and fifty per cent to the final tests

(b) The following is the scheme of examinations and tests in Art

## *Sessional Work*

All sessional work must be completed satisfactorily before the other tests may be taken

## *Practical Time Tests*

Drawing from common objects, in pencil, and in charcoal  
 Drawing from nature  
 Composition, simple illustration of a given subject  
 Modelling of simple forms  
 Design of conventionalized natural forms, lettering  
 Colour painting still life in colour harmony  
 Blackboard and memory drawing

## *Written Tests*

Outlines of the history of art  
 Theory of colour  
 Design and applied art  
 Elementary perspective  
 Methods of teaching art in High and Continuation Schools  
 Each subject and each paper shall be valued at 100

## CERTIFICATES

36 (1) On the recommendation of the examiners the Minister of Education may grant an Elementary certificate in Physical Culture or Art, as the case may be, to the student in the course for an Interim Ordinary High School certificate, provided that said student is awarded an Interim Ordinary High School certificate and obtains (a) in Physical Culture a minimum of 50% of the marks assigned to each subject of (i) the written and of (ii) the sessional and final practical tests respectively, or (b) in

COURSES FOR ELEMENTARY CERTIFICATES IN PHYSICAL CULTURE AND ART—*Continued*

Art a minimum of 50% of the marks assigned to each subject or paper of the practical and written tests, respectively

(2) (a) No student will be awarded an Elementary certificate in Physical Culture or Art whose attendance or progress in any part of the course has been reported as unsatisfactory

(b) The Dean will investigate the claims of the candidates who report themselves as unable for physical reasons to take the course in swimming, provided that such claims are presented to the instructor at the beginning of the session on a form and after a manner defined by the Minister of Education. If any candidate is exempted from the instruction in swimming by the Minister of Education that fact will be stated in his certificate

(3) On the recommendation of the examiners, the Minister of Education may permit candidates in these courses who have completed the sessional work and taken all practical tests successfully but who have failed in one or more subjects of the written tests, to take the written tests without attending again or repeating their practical work or tests

## DETAILS OF COURSES

## FOR ORDINARY HIGH SCHOOL ASSISTANTS', HIGH SCHOOL SPECIALISTS', AND FIRST CLASS PUBLIC SCHOOL CERTIFICATES AND FOR ELEMENTARY CERTIFICATES IN PHYSICAL CULTURE AND ART

37 The topics of the subjects of the courses for Interim Ordinary High School Assistants' and High School Specialists' certificates and for Elementary certificates in Physical Culture or Art are given below. For the courses for Interim First Class Public School certificates these topics and subjects must be supplemented by the topics and subjects set out in the Normal School courses for First Class Public School certificates

## THE SCIENCE OF EDUCATION

38 *Introduction* —Democracy and education, the special need for education in a democracy, teaching as a vocation, teacher-training in a modern educational system

*General Method* —The meaning of method and its psychological foundations, procedures common to various branches of teaching, types of lessons, notes of lessons

*Principles of Education* —The nature and aims of education, the function in education of the state, home, church, vocation, etc., the curriculum, its nature, purpose, and selection, modern movements for the reform of education

*Educational Classics* —The study in class of selected portions of a few educational classics

*Educational Psychology* —The original nature of man, including a study of heredity, instinct, and capacities

The Psychology of the learning process, including the study of such topics as habit, rates of learning, practice, fatigue, memory, reasoning

The Psychology of typical high school branches, standard scales for their measurement

The measurement of general intelligence, an examination of the Binet-Simon and other tests

Child Study, its aims, methods, and results



## DETAILS OF COURSES

*Books of Reference*

*Ontario Normal School Manuals Science of Education, History of Education*

Adams (Ed) *The New Teaching*

Dewey *Democracy and Education*

Raymont *Principles of Education*

Ruediger *Principles of Education*

Sandiford *Mental and Physical Life of School Children*

Starch *Educational Psychology*

Waddle *Introduction to Child Psychology*

Woodrow *Brightness and Dullness in Children*

## SCHOOL MANAGEMENT AND LAW

39 School Management, School Organization, School Administration, aims and scope of each, relation of each to the teaching process

Forms of educational control, Department of Education and its functions, school boards and their functions, relation of inspectors and principals to teachers, teachers to caretakers, trustees, finance of education, business administration

Types of schools, functions of each type, primary, secondary, and higher schools, consolidated schools, day and evening schools, training schools, commercial, industrial, agricultural, and technical schools, schools for subnormal children, defectives, and delinquents

School sites and surroundings, school buildings, construction, care-taking, heating, ventilation, lighting, sanitation, decoration, and equipment, apparatus, libraries, selection, cataloguing, use, text-books, authorization, use and abuse, free text-books, visual aids, medical and dental inspection, the detection of communicable diseases

The teacher characteristics, qualifications, appointment, tenure of office, promotion, improvement of status, superannuation of the teacher, duties of the teacher in relation to pupils, parents, and other citizens, qualifications and characteristics of the successful teacher, his code of ethics

The pupil privileges and duties, the health of the pupil, the formation of his habits, the teacher's responsibility, fatigue, moral training

The first day in school, the importance of the teacher's work and attitude

Organization grading and classification, promotion, retardation, elimination, care of individual and of abnormal

The recitation assignment of home and seat work, oral and written exercises, how to study, questioning, treatment of answers

Discipline its scope, relation to methods of teaching, incentives, causes of disorder and inattention, methods of dealing with weaknesses and offences, penalties

# DETAILS OF COURSES

Time-tables purpose, principles involved in construction, typical daily programmes for various kinds of schools

Records and reports keeping registers, value and kinds of school records, forms of reports

Examinations and other tests of progress

School Law and Regulations and Public Health Acts and Regulations in so far as they refer to the duties of school boards, teachers and pupils

## *Books of Reference*

*Regulations and Courses of Study for the Public, High and Continuation Schools of Ontario*

*Ontario Schools Acts, and Public Health Act*

*Ontario Normal School Manual School Organization and Management*

Bennett School Efficiency

Bagley Class Management

Ballard The New Examiner

Hume The Improvement of the Elementary Teacher in Service

Johnston The Modern High School

## ENGLISH

40 (1) *Reading* The importance of training in reading and in the principles of vocal expression to the pupil's ordinary speech and general culture

The Reading Process The factors involved in the process, the work of the eye in reading, word-recognition, the reading process as a specialized mode of the thought process, the relation of ideas to symbols, constant necessity for associating the printed symbol directly with the idea, the ideal conditions for the formation of this association

The nature and function of silent reading, methods of conducting lessons in silent reading, the basis of expressive reading, the principles of vocal expression, the criticism of the pupil's reading, the place and limitations of imitative reading

Practice, voice training, a class course in expressive reading, this work to be supplemented by practice in connection with the course in literature and with the activities of the Literary Society and the Dramatic Club

Tests Reading tests, e g, "The Courtis Standard Test in Reading"

(2) *Literature*—The place of literature in school courses, the principles followed in Ontario and elsewhere in arranging literature courses for schools, books suitable for intensive study in the various forms or grades of the schools, class treatment of such types of literature as the

## DETAILS OF COURSES

short poem, the long narrative poem, the play, the short story, and the novel, examinations in literature, supplementary reading, its importance, selection of books, testing of reading

The course in literature includes a consideration of the problems connected with the teaching of silent and expressive reading and voice training

(3) *Grammar*—Introductory The meaning of English grammar, its relation to speech, reasons for and against retaining it in elementary schools, reasons for deferring the formal study till Form IV, introductory work of Form III in connection with composition

Consideration of the content and value of the course in grammar in Continuation and High Schools, the work to be covered in each of the Forms of the Lower School, use of a text-book in grammar, terminology, the use of definitions, treatment of false syntax, methods of conducting instruction in grammar discussed and illustrated in lessons upon subjects selected from topics difficult of presentation

(4) *Composition*—Introductory The value of language training; present-day tendencies in the teaching of composition

Methods How habits of speaking and writing good English are formed, expression as a stage in the development of every lesson, the forms of expression that aid most the development of language powers, the effect of the teacher's example upon the pupils' language, relative value of reading and telling stories, the story method, value of reading and memorizing good literature, incidental work in language training

The relation of oral and written composition, purpose and value of oral exercises, criticism of oral work, the dangers connected therewith and the means of avoiding them

The principles to be kept in view in conducting exercises in written composition, the method of gathering, selecting, and arranging material, value of topical outlines, supervision and aid during writing, the place of home work in written composition, the value of formal linguistic exercises, correction of common errors, letter-writing and business-forms

The mechanics of written composition Sentence and paragraph structure, paragraph compositions, the use of capitals, punctuation marks, quotation marks, abbreviations, etc

The principles to be followed in arranging a course in composition, work suited to the age and experience of the student, use of a text-book in composition, amount of written work to be demanded, criticism of essays, standards of marking, place of rhetoric in the school course, importance of oral composition, sources of material, class procedure

## DETAILS OF COURSES

*Books of Reference**Ontario High School Grammar**Ontario High School Composition**Public School Manual in Composition**Bolenius The Teaching of Literature in Grammar Grades and the High School**Bolenius The Teaching of Oral English**Carpenter, Baker and Scott The Teaching of English**Chubb The Teaching of English**Clark How to Teach Reading in the Public School**Dickie Modern Practice in the Teaching of Composition**Huey Psychology and Pedagogy of Reading**Lamborn The Rudiments of Criticism**Macpherson The Study of English Literature*

## HISTORY

41 Stages in the study of history, the reflective stage, the tools of the history teacher, the High School course in history and civics, importance, content, methods of teaching Illustration of methods in lessons on topics selected from the history prescribed for the Lower and Middle Schools Students will be required to show their ability to gather historical material, and to present it in acceptable forms

*Books of Reference**Public School Manual History**Barnard The Teaching of Community Civics**Bourne The Teaching of History and Civics**Dunn Social Studies in Secondary Education**Jarvis The Teaching of History**Johnson The Teaching of History**Macpherson Visual Aids in the Teaching of History**Tryon The Teaching of History in Junior and Senior High School*

## SEMINAR IN ENGLISH AND HISTORY

42 *English*

(a) A study of topics difficult of presentation in the English grammar, composition, and literature prescribed in the High School courses of study

(b) A discussion of the organization of the course in English throughout the various Forms of the High School

(c) A study of the methods of class-room procedure in the teaching of English, and of problems arising therefrom

## DETAILS OF COURSES

*Books of Reference*

- Carpenter, Baker and Scott *The Teaching of English*  
 Chubb *The Teaching of English*  
 Hosc Reorganization of English in Secondary Schools (Bulletin  
 No 2, 1917, Bureau of Education)  
 Leonard *Essential Principles of Teaching Reading and Literature*  
 Newbolt *Report on the Teaching of English in England*  
 Tomlinson *The Teaching of English*  
 Articles in "The English Journal" and other journals

**HISTORY**

- (a) A study of topics difficult of presentation in the prescribed history.  
 (b) A discussion of the courses in history that are adapted for pupils of various ages, and of the corresponding methods of teaching  
 (c) A study of the method of research in history The preparation of short monographs on assigned topics

*Books of Reference*

- Johnson *The Teaching of History*  
 Allen *The Place of History in Education*  
 Dunn *Social Studies in Secondary Education* (Bulletin No 26,  
 1916, Bureau of Education)  
 Hasluck *The Teaching of History*  
 Keatinge *Studies in the Teaching of History*  
 Articles in "The Historical Outlook" and other journals  
 Simpson *Supervised Study in History*  
 Tryon *The Teaching of History in Junior and Senior High Schools*

## MATHEMATICS

43 *Arithmetic* —A brief study of present-day movements in Arithmetic, the fundamental changes in the purpose and method of teaching arithmetic, the content selected for teaching, and the relation of arithmetic to the life of the child

The origin of number, the various steps involved in the development of the number idea, the unit, its nature and use, the necessity for standard units, number, a ratio

Methods Analysis and synthesis, induction and deduction, illustrated and applied, the use of concrete material and apparatus, use of graphic methods, drill and devices to secure neatness, accuracy and rapidity of computation, importance, place, and treatment of mental arithmetic  
 Checking and verifying of results in arithmetic

The value of problems, selection of problems, interest in problems for which the pupils themselves furnish the materials, where and how to assist pupils, type solutions, the unitary method, its merits and limitations, solutions by full analysis and by performing only necessary operations

## DETAILS OF COURSES

Fractions (a) vulgar, different interpretations, numeration, and notation, operations, conditions under which these operations can be performed, measures and multiples, (b) decimal, as special fractions and as complements of common notation, correspondence of methods with those of integers Approximations

Compound rules, tables of weights and measures, reduction, operations.

The metric system, when and how it should be taught

Square root by factoring and by the formal method, illustrated geometrically and algebraically

Commercial arithmetic how to make topics like discount, stocks, exchange, etc., concrete to the pupil, use of tables in calculating interest, discount, taxes, etc., commercial and business forms

Mensuration, the application of arithmetic to space relations, theoretical and practical methods of obtaining formulae, practical problems to show the use of these formulae, the necessity of models in teaching mensuration

*Algebra*—Arithmetical algebra, transition from arithmetic to algebra, generalization of language and of method, the introduction and defining of symbols, the negative quantity, the simple rules, the distributive law, commutative law, index law, sign rule, the equation and its place in algebra, factoring, highest common factor and lowest common multiple, use of detached co-efficients, classes of simple equations, symmetry and its applications in elementary algebra, square root; method of dealing with problems and the object to be kept in view in their solution, verifying and checking results, correlation of algebra and geometry, graphical methods of illustrating formulae and of interpreting the roots of equations

The theory of fractional and negative indices, surds and surd equations, quadratic equations of one and two unknowns, theory of quadratics, simple ratio and proportion

*Geometry*—Practical geometry to precede the theoretical, use of instruments, paper folding, necessity for accuracy, distinction between practical geometry and geometrical drawing, practical problems in the solution of triangles and in measuring heights and distances, limitations of appeals to the concrete, value of experimental proofs, need of clear and definite conceptions of the fundamental truths, the place of the definitions and axioms, when and how they should be introduced, the proposition, homework and class-work, the analytic-synthetic method of dealing with propositions and deductions, the comparative values of propositions and deductions, the comparative values of propositions and exercises, how to get pupils to work original exercises, necessity of original work from the beginning of theoretical geometry, the indirect method of demonstration, methods of class teaching, importance of note-books for pupils' exercises, the grouping and relating of propositions, practical applications, algebraic solutions, Euclid's method compared with modern methods, method of

## DETAILS OF COURSES

teaching the more important propositions and exercises in Book I of the authorized text

*Books of Reference*

*Public School Manual in Arithmetic*

McMurry Special Method in Arithmetic

Schultze The Teaching of Secondary Mathematics

Smith The Teaching of Elementary Mathematics

Suzzallo The Teaching of Primary Arithmetic

Young The Teaching of Mathematics

## SEMINAR IN MATHEMATICS

44 The seminar in Mathematics will discuss methods in Trigonometry and the more advanced parts of Algebra and Geometry, the order of presenting the parts of these subjects so as to secure the most logical and impressive relation among the parts, the relations of the subjects themselves, the place of the teacher in dealing with more mature minds, the history and development of such special topics as the algebraic equation, the vulgar and decimal fraction, loci, maxima and minima, theory of parallel lines, etc., examinations in mathematics, their purpose, when they should be held, the character of the paper, methods of marking, etc

*Books of Reference*

Howell A Foundation Study in the Pedagogy of Arithmetic

Fink A Brief History of Mathematics

Schultze The Teaching of Secondary Mathematics

Articles in "School Science and Mathematics"

## GEOGRAPHY

45 Scope and Method of Geography Relationship to other subjects of the courses of study, general methods of presentation with advantages and disadvantages of each method

Regional Geography Maps, different kinds, importance of each, map drawing, use of pictures, globes and other visual aids, use of text-books, readers, reference books, methods of treatment of typical regions

Commercial Geography Factors determining commerce, chief commercial commodities, geographical factors determining their production and distribution, relation of physical features to commerce, commercial geography of selected regions, methods of treatment of typical problems

Physiography Relation of physical to commercial and regional geography, importance of experimental work, use of such aids as contour, isobar, isotherm, and weather maps, interpretation of the physical geography of Ontario A discussion of the method of treatment of topics difficult of presentation from the physical geography prescribed for the High Schools of Ontario

## DETAILS OF COURSES

*Books of Reference**Public School Manual Geography*Wallis *The Teaching of Geography.*Chisholm *Handbook of Commercial Geography.*Lake *Physical Geography*Andrew *A Text-book of Geography*

## SCIENCE

46 The following are the main topics of the course

A Scope and value of the natural sciences, meaning of science and scientific method, educational value of science, inductive and deductive methods of investigation

Experimental work, how conducted, how recorded, manipulation of apparatus, glass-working, making of simple apparatus, classroom discussion, its purpose, method, and relation to the experimental work, the use of text-books, note-books, method of inspection, drawing, reference books, most suitable books in each subject for the library, supplementary reading, methods in biology, physics, and chemistry of the Lower School, illustrated in lessons upon subjects difficult of presentation

B Laboratory equipment for the teaching of Elementary Science, and of Physics, Chemistry, and Biology, methods of demonstration, use of technical terms, theories, facts, scientific laws, text-books and reference books

Chemistry Order of treatment, introductory work Methods of conducting instruction in Chemistry will be discussed, and illustrated in lessons upon subjects selected from such topics as the following chemical laws and theories, valency, formulae and equations, nomenclature, qualitative and quantitative experiments, chemical arithmetic, the elements, with sodium and chlorine as types

Physics Methods of conducting instruction in the more difficult parts of the courses in heat, light, sound, magnetism, electricity, and mechanics will be discussed and illustrated in lessons upon subjects selected from such topics as the following specific gravity, properties of liquids and gases, machines, temperature, specific heat, laws of reflection, images in mirrors and lenses, laws of vibrating strings with problems, interference of sounds, lines of magnetic force, relation between statical and current electricity, practical applications of electricity

Biology Dissection, experiments with plants, the microscope, aquaria and terraria, school museums, plant and animal ecology Methods of



## DETAILS OF COURSES

conducting instruction in biology will be discussed and illustrated in lessons upon subjects selected from such topics as the following relation of structure to function, animal and plant types as the grasshopper, frog, hepatica, fern. This discussion will assume a practical acquaintance on the part of the student with the common plants and animals of Ontario.

*Books of Reference*

*High School Manual. Suggestions for Teachers of Science*

Burlend First Course in Zoology

Gregory and Simmons Lessons in Science

Twiss Principles of Science Teaching

Lloyd and Bigelow The Teaching of Biology

Smith and Hall The Teaching of Chemistry and Physics

Woodhead The Study of Plants

## SEMINAR IN SCIENCE

47 Manipulation Practice with apparatus used in High School demonstrations, preparation of illustrative charts, the projection lantern, photography, preparation of lantern slides, care of aquaria and vivaria, growth of plants for experiments in vegetable physiology, collection and preservation of botanical and zoological material for Upper School work

Equipment Laboratory accommodation, arrangement of laboratories, lighting and ventilation, arrangement and structure of benches and other furniture, care and purchase of apparatus, chemicals and minerals, most suitable kinds, method of preparation and storage, reference works and periodicals in science for the High School library

Methods of treating topics difficult of presentation in physiography, physics, chemistry, biology, mineralogy and geology discussed, and illustrated in lessons selected from the following topics geological history of the Great Lakes in its relation to the physical features of Ontario, geographical significance of minerals and rocks, protection and colour of animals, Mendelism, plants in relation to insects, form and colour of flowers, parasitic and saprophytic plants, insectivorous plants, laws of combination in chemistry, symbols, formulae, and equations, valency, atomic and molecular theories, Boyle's Law, Charles' Law, electron theory of matter, absolute temperature, relation of acceleration, momentum, force, and energy, surface tension, flow of liquids

*Books of Reference*

DAVIS Natural History of Animals

Ganong The Teaching Botanist

Ganot Text-book in Physics

Kerner Natural History of Plants

Laboratory Accommodation, Pamphlet No. 9 of Department of Education of Ontario

## DETAILS OF COURSES

*Books of Reference — Continued*

Mann The Teaching of Physics

Mellor Modern Inorganic Chemistry

Twiss Principles of Science Teaching

U S Bureau of Education Bulletin 63, 1919 Natural Science  
Teaching in Great BritainU S Bureau of Education Bulletin 26, 1920 Reorganization of  
Science in Secondary Schools

## SEMINAR IN AGRICULTURE

48 The history of agricultural education, especially in Denmark, the United States and Canada, methods of conducting laboratory and plot work, relation of the course in agriculture to vocational education, laboratory work

*Books of Reference*

Barkett, Stevens and Hill Agriculture for Beginners

Manual of Elementary Agriculture and Horticulture

Marshall Microbiology

Plumb Types and Breeds of Farm Animals

Robinson Principles and Practices of Poultry Culture

Sanderson Insects of Farm, Garden and Orchard

Snydes Soils and Fertilizers

Warren Elements of Agriculture

Waters The Essentials of Agriculture, Farm Management

Note Candidates for Specialists' certificates in Agriculture will take also the course in Science for High School Assistants

## CLASSICS (LATIN AND GREEK)

49 The relation of method in teaching Latin or Greek to linguistic method in general, the effect of the object of teaching Latin or Greek upon the method in various departments, such as oral reading, grammar, translation, sight reading, and the literary or historical content, illustration of methods in typical lessons

Pronunciation, oral reading, sight reading, and English translation as prescribed for Normal Entrance or Pass Matriculation; general principles of word-structure and sentence-structure, word order, methods of teaching the parts of a lesson, the direct method, topics of inflection and syntax as found in the Latin and Greek Books, special emphasis on difficult topics

*Books of Reference*

Bennett The Teaching of Latin

Chickering and Hoadley Beginner's Latin by the Direct Method.

Crawford On Pronouncing Latin

Hale The Art of Reading Latin

## DETAILS OF COURSES

- Westaway Quantity and Accent in the Pronunciation of Latin  
 Bristol The Teaching of Greek  
 Thompson Homeric Grammar  
 Goodwin Greek Grammar  
 Goodell Greek Grammar  
 Arnold On Translating Homer

## SEMINAR IN CLASSICS

50 In the seminar in Classics, topics are chosen germane to the teaching of Horace, Vergil, Cicero, Caesar, Xenophon; and continuous Latin prose composition. The following list will show the nature of the topics for discussion.

The teaching of Horatian metres, the poetic art of Horace, the translating of Horace into English prose, the use of metrical versions, certain Asclepiadean odes, the national odes, Horace's treatment of religion, death, friendship, and fortune, the selection of "fine lines", the complete teaching of an ode of Horace, the appropriate commentary.

The teaching of Vergil in an honour class, the difficulties in translating Cicero, what T. Rice Holmes has done for the teaching of Caesar, the sequence of tenses in Caesar's indirect discourse, the teaching of Latin prose composition, the teaching of Xenophon in an honour class, the classical library.

The direct method in Latin and Greek

*Books of Reference*

- Bennett and Bristol The Teaching of Latin and Greek  
 Johnson Pamphlets on the Teaching of Caesar and Vergil  
 Hale Pamphlets on the Art of Reading Latin  
 Articles in the "Classical Journal"

## FRENCH, GERMAN, OR SPANISH

51 Introductory Importance of the study of a modern language, aims of the study.

Study of Methods A comparison of methods in view of the present conditions in the schools, *e.g.*, the age and attainments of pupils, the size of classes, allotment of time, text-books in use, regulations governing the teacher, illustrative lessons.

Pronunciation Study of phonetics, theory and practice.

Elementary Classes Classes conducted without a text-book, conversation lessons, how to make use of the objects of the classroom, pictures and drawings, unison work, variety and interest, dictation, note-books and their correction, picture lessons, necessity for thorough drill.

Grammar Inductive and deductive teaching, grammatical rules and their value, special illustrative lessons on essentials.

## DETAILS OF COURSES

the recitation Special consideration of selected passages from the Reader and the Authors prescribed for Junior Matriculation

Composition to be based on models, free reproduction, original essays; writing of letters, methods of correction, training in the use of the dictionary

*Books of Reference*

- Bagster-Collins The Teaching of German
- Bahlsen Teaching of Foreign Languages
- Dumville French Pronunciation
- Heath Report of the Committee of Twelve
- Jespersen How to Teach a Foreign Language
- Palmer Scientific Study and Teaching of Languages
- Savory and Jones Sounds of the French Language
- Vietor German Pronunciation

## SEMINAR IN FRENCH AND GERMAN

52 The seminar will lay stress upon the consideration of the value, aims, and methods of linguistic training, the relation of linguistic training to literary culture, history of methods formerly employed in the teaching of modern languages in the secondary schools of France, Germany, Great Britain, and the United States, the necessity for better methods in Ontario, the Direct Method illustrated in the class-room, a study of French life, manners, and institutions, the importance of pronunciation, the value and use of phonetic symbols, use of phonetic charts and wall-pictures, typical lessons in advanced grammar, conversation, translation, sight reading, prose composition, free reproduction exercises, dictation, and audition, writing and correction of passages in French composition, consideration of books helpful to the teacher, the extent of the courses in the Upper School, writing essays on allotted subjects

*Books of Reference*

- Bagster-Collins German in Secondary Schools
- Bahlsen Teaching of Modern Languages
- Brebner Method of Teaching Modern Languages in Germany
- Breul Teaching of Modern Languages
- Dumville French Pronunciation
- Geddes French Pronunciation
- Gouin The Teaching and Studying of Languages
- Gouris Teaching by the Direct Method
- Jespersen How to Teach a Foreign Language
- Kittson Theory and Practice of Language Teaching
- Rippmann Elements of Phonetics
- Savory and Jones Sounds of the French Language
- Sweet Practical Study of Languages
- Walter Zur Methodik des neu Sprachlichen Unterrichts

## DETAILS OF COURSES

## VOCAL MUSIC

53 **Tune** All intervals of the Major Diatonic Scale, both from the Tonic Sol-fa and staff, the relative minor, transition

**Time** Whole pulse, continued pulse, silent pulse, and pulse divided into halves, quarters, and thirds with the various combinations of these in simple and compound duple, quadruple, and triple times All the above in both the Tonic Sol-fa and staff notations

**Ear-training in Time and Tune** Recognition of rhythm and tone, of short musical phrases when played or sung, and their expression in either notation

**Voice-culture** Breath-control, tone production, vowel-formation, enunciation of consonants, correct intonation, blending of registers, and general training for quality, range, and flexibility

**Sight-singing** Singing from pointing on modulator or staff Singing at sight easy passages containing the varieties of time and tune mentioned above

**Songs** The study of songs, in one or two parts, suited to the requirements of pupils in various school grades, with special attention to accent, enunciation, phrasing, quality of tone and expression

**Notation** Elements of notation, both Tonic Sol-fa and staff, the formation of the major and minor diatonic scales, elements of modulation and transposition

**Vocal Physiology** Anatomy of lungs, larynx, and resonating cavities, comparison of abdominal, intercostal and clavicular methods of breathing, action of vocal chords in production of tone and of the various vocal registers, influence of resonating cavities upon quality of tone and vowel, care of voice in speaking and singing

**Methods** The grading of school music to suit the development of the pupils and the methods of teaching both systems

*Books of Reference*

*Crangan* *The Educational Music Course*

*Crangan* *Teacher's Handbook of Tonic Sol-fa System*

*Curwen* *The Standard Course*

*Curwen* *The Teacher's Manual*

*Hardy* *How to Train Children's Voices*

*Hulbert* *Breathing for Voice Production*

*Mason* *How to Teach the Staff Notation*

## SEMINAR IN HOUSEHOLD SCIENCE

54 The development of Household Science, the relation of household science to the other subjects of the curriculum, its value and aims, household science in the Public School, in the High and Technical Schools and

# DETAILS OF COURSES

in the University, accommodations and equipment for household science work in the various types of schools courses of study, methods of instruction, use of equipment and note-books, use of text-books, discussion of selected parts of the High School course of study

## *Books of Reference*

- Ontario Public School Manuals *Household Science for Rural Schools, Household Management, Sewing*
- Balderston *Housewifery*
- Baldrt *Clothing for Women*
- Cooley, Winthell, Spohr, Marshall *Teaching Home Economics*
- Kinne *Equipment for Teaching Domestic Science*

# PHYSICAL CULTURE

## 55 PRINCIPLES (For men and women)

Anatomy Bone, composition, classification, bones of upper extremity, bones of the vertebral column, bones of the head, bones of the abdomen and thorax, bones of the lower extremity Joints Classification and description of movable joints, importance of joints Muscle Varieties, origin, insertion and action Digestive system, stomach, liver, etc Circulatory system heart, arteries, veins, etc Respiratory system Nervous system

Physiology Oxidation and waste, metabolism, blood, composition, quality, the heart beat, respiration, mechanism, changes in the lungs, in the tissues, nervous mechanism of respiration, physiology of muscle Digestion, digestive juices, function of saliva, gastric juice, pancreatic juice, and bile, succus entericus, changes in the food in the alimentary canal, lymph, movements, absorption Nutrition, comparison of income and output of material, animal heat, diet

First Aid to the Injured Shock, wounds, bleeding, burns, exposure to cold, frostbite, fractures, sprains and dislocations, restoration of the apparently drowned, choking, foreign bodies in eye or ear, unconsciousness, fainting, apoplexy, heatstroke, poisons, bandaging

## Personal Hygiene

## PRACTICE (For men only)

Calisthenics Dumb-bells—Roberts, Barton, combinations, wands—elementary, Barton, miscellaneous, clubs—class club—swinging.

Elementary Exercises on Apparatus Horse vaults, flank, front, rear, screw, squat, straddle, wolf, mats jumps and hops, jumps and hops with turns, underswings, underswings with turns, buck, vaults, same as on horse and vaulting bar

Indoor Games. Course to enable teachers to coach and referee the following games basketball, indoor baseball, volleyball

## DETAILS OF COURSES

Outdoor Athletics Field and track sports Course to enable teachers to coach athletics and to direct athletic meets, starting, sprinting, running, broad jump, high jump, shot put, hurdles

Boxing and single sticks, bayonet exercises, squad and company drill, rifle and musketry practice and skirmishing, saluting, signalling, instruction in use of subtarget

Swimming Elementary

Mutual instruction in the various exercises

PRACTICE (For women only)

Squad drill, marching tactics, wheeling, turnings

Freehand exercises, including Strathcona Trust exercises, dumb-bell drills, elementary, advanced, wand drills, Barton, Anderson's twist drill, clubs, classified exercises

Elementary exercises on the following apparatus horse, mats, vaulting bar, buck, rings, Swedish stall bars, suspended ladder

Indoor Athletic Sports Running races, gymnasium games, including basket-ball, schoolroom and playground games

Dancing Technique of dancing, simplified athletic dances, folk dances and singing games, old English country dances

Swimming Elementary

Mutual instruction in the various exercises

*Books of Reference*

*The Syllabus of Physical Exercises for Schools*

Barton Physical Training

Bancroft Games for Playground, Home, School and Gymnasium

Burchenal Dances of the People

Burchenal Folk Dances and Singing Games

Chalf Chalf Text book of Dancing

Corsan At Home in the Water

## ART

## THEORY AND PRACTICE

## 50 A. PRESENTATION

(1) *Pencil and Charcoal Drawing*

The proper handling of the hard pencil and charcoal

The principles of drawing, (1) in outline, (2) in neutral tones to represent colour values of light and shade

The principles of elementary perspective

The study of the effects of light and shade and shadow

The study of the laws of composition in the pleasing arrangement of objects in small groups

# DETAILS OF COURSES

Freehand drawing, above and below the eye level, in outline, and in neutral tones, (1) from common manufactured objects of curvilinear and of rectilinear form, and (2) from natural forms, as flowers, fruits, plants, trees, insects, animals, etc

Freehand drawing from memory

## (2) *Blackboard Drawing*

Practice in making rapid sketches on the blackboard to ensure its use by the student-teacher in teaching other subjects of school study besides art

## (3) *Modelling*

Modelling in clay and in plasticine of simple forms

Casting in plaster

## (4) *Water Colour Painting*

The theory of colour, colour perception, spectrum standards, properties of colour (hue, value, intensity), colour harmony (complementary, analogous, contrasted, and monochromatic scales)

Construction of colour charts

Brushwork in monochrome

Water colour painting from common manufactured objects, and from natural forms, of a single object and of small well-composed groups

# B DESIGN AND LETTERING

## (1) *Decorative Design*

The principles of decorative design

The use of geometric and of natural forms in design

The making of decorative designs and applying them to useful purposes

The completion of decorative designs in balanced neutral tones and in harmonious colour schemes

## (2) *Lettering*

The principles of lettering

Lettering with the freehand and with mechanical aids

The adaptation of lettering in exercises in applied design

# C ART APPRECIATION AND THE HISTORY OF ART

Pictorial Composition The essential artistic qualities of pictures—in line, tone, and colour

The study of masterpieces Essays

Illustration of given themes

Visits for study to the Museum and the Gallery of Art

The study of home and school furnishings and decoration

An outline of the History of Art



## DETAILS OF COURSES

## D METHODS OF TEACHING ART IN HIGH AND CONTINUATION SCHOOLS

The Regulations of the Department of Education

The real objects to be sought in the teaching of Art, involving a consideration of its relation to the life of the student and to the interests of the community

The organization and equipment of classes

The care of materials and of drawings

The courses of study A natural order and method of development of the subjects and the principles of these courses

Methods of teaching form (including proportion and perspective), tone, colour, composition, decorative design, handling of mediums, and the appreciation of pictures

The preparation of studies for class work

The division of the time given to Art The correlation of Art with other studies

Conducting examinations in Art Points to stress in criticising and valuing drawings

A discussion of teaching difficulties and methods of overcoming them

A description of teaching helps and information as to how and where they may be secured

*Books of Reference*

*Ontario Teachers' Manual Art*

Branch Illustrated Exercises in Design

Caffin A Guide to Pictures

Caffin How to Study Pictures

Cross Colour

Cross Light and Shade

Low Composition

Hatton Perspective

Norton Freehand Perspective and Sketching

Prang's Art Education for High Schools

Reinach Apollo—Story of Art throughout the Ages

Seaby Blackboard Drawing

Simonds Modelling in Clay and Wax

Strange Handbook of Lettering

Taylor Elementary Art Teaching

COURSE FOR ORDINARY CERTIFICATES IN HOUSEHOLD  
SCIENCE

## PURPOSE

The course for Interim Ordinary certificates in Household Science prepares candidates therefor in the theory and art of organizing, governing, and instructing in Household Science the pupils of the Public, Separate, and High Schools of Ontario

## CONDITIONS OF ADMISSION

A candidate for admission to the course for the Interim Ordinary certificate in Household Science should make application, not later than September 30th, on a form to be obtained from the Secretary of the Ontario College of Education and should submit with this application

- (1) A certificate from a competent authority that she is a British subject
- (2) A certificate from a clergyman or other competent authority that she is of good moral character
- (3) A certificate from a physician that she is physically able for the work of a teacher and, especially, that she is free from serious pulmonary affection and from defective eyesight or hearing
- (4) A statement signed by herself to the effect that she intends, when opportunity offers, to teach the subject of Household Science
- (5) One of the following
  - (a) A Second-Class or First-Class Public School or an Ordinary High School certificate
  - (b) A Kindergarten-Primary or a Kindergarten Director's certificate together with Normal Entrance, Faculty Entrance, or equivalent certificates under other names

## FEES

- (1) The annual fee, which shall include tuition, laboratory supplies, and the use of the library shall be \$25 00
- (2) At the beginning of the session, a deposit of \$4 00 will be required from each student. This deposit, less the cost of equipment and apparatus that may have been destroyed, will be returned at the close of the session
- (3) If a student who has been granted an Ordinary Certificate teaches the subject of Household Science in a school in the Provincial system during the year following the examination, the fee of \$25 will be returned to her on the report to the Minister of Education by the Inspector of Household Science that the work has been satisfactorily performed. Applications for such refunds should be made to the Deputy Minister of Education

COURSES IN HOUSEHOLD SCIENCE—*Continued*

## COURSE OF STUDY

The Course of Study for the Ordinary certificate in Household Science includes the following

## PART I

## FOODS

*Economics* —Marketing, points to be considered in selection, factors determining cost, saving of materials, fuel, and labour in preparation, care in the home, utilization of left-overs

*Food Values* —Composition of foods, requirements to maintain the body in health, factors influencing diet, digestion of foods, menu planning, diets for infants, children, and adults, special diets for use in the home care of the sick

*Preparation* —Scientific principles underlying methods of preparation; application of these principles by preparing food materials, practical and theoretical demonstration work, meal preparation (children's meals, home meals, the rural school lunch, etc.)

Table Service and Manners

Special Schoolroom Methods

## CLOTHING

*Selection* —Origin and manufacture of cotton, linen, wool, and silk, their properties and value in relation to their manufacture, identification of textile materials (names, widths, prices, uses)

*Construction* —Handsewing (constructive processes applied to simple articles), use and care of sewing machine and its attachments, use of home and commercial patterns, cutting and making of simple garments

*Care* —Daily, weekly, and seasonal, removal of stains, repairing

Special Schoolroom Methods

## HOUSEHOLD MANAGEMENT

*The House* —Planning, furnishing, care (study of reagents, cleaning of metals, woods, textiles, laundry work), demonstrations, household administration (problems and technical procedures in the management of the modern home)

*Sanitation* —Effect of environment on health, sanitary control of surroundings, disposal of waste

*Home Nursing* —Care of the infant, child, and adult, emergencies, bandaging

Special Schoolroom Methods

COURSES IN HOUSEHOLD SCIENCE—*Continued*

## ELEMENTARY APPLIED SCIENCE

Chemical composition and reaction of household materials, physiological values of foods and changes which they undergo in digestion, putrefaction, etc., testing of water, carbohydrates, proteins, fats, vegetables, flours, cereals, baking powders, beverages, etc

## GENERAL METHODS IN HOUSEHOLD SCIENCE

Aims in teaching Household Science, scope of Household Science, relation to other subjects, methods of presentation in different types of schools, planning of courses, equipment, cost of lessons, etc General discussions

## PART II

Observation and Practice-teaching will be provided in the Public and High Schools of Toronto and will include a minimum of six practice lessons per student with an equal number of periods for observation lessons

## EXAMINATIONS

(1) Candidates for Ordinary certificates shall pass in each of Parts I and II under the following conditions

## (a) Part I

The following shall be the subjects in Part I with the maximum value for each subject

Foods	(200)
Clothing	(200)
Household Management	(200)
Elementary Applied Science	(100)
General Methods in Household Science	(100)

The standing of candidates in the subjects of Part I will be determined by the sessional records and the final written examinations

The sessional records, to which shall be allotted one-half the maximum value assigned above to each subject, shall consist of the daily credits and of the results of oral, written, and practical tests given throughout the session

The final written examinations, to which shall be allotted the remaining half of the maximum value assigned above to each subject, shall include the following papers

Foods, 2 papers
Clothing, 2 papers
Household Management, 2 papers

COURSES IN HOUSEHOLD SCIENCE—*Continued*

Elementary Applied Science, 1 paper

General Methods in Household Science, 1 paper

The pass standard in Part I shall be 50% of the marks assigned to each subject

(b) Part II

The standing of candidates in Part II shall be determined wholly by the sessional records. For this purpose the maximum value assigned to practice lessons shall be 300, and to observation lessons, 100.

The pass standard in Part II shall be 60% of the aggregate of the marks for the practice lessons and for the observation lessons respectively.

(2) (a) Candidates who pass in Part II and fail in not more than two subjects of Part I will be exempted from further attendance.

(b) All other candidates who fail to obtain the necessary final standing will be required to attend another session, beginning after the Christmas vacation.

(3) (a) Candidates who are exempt from attendance under (2) (a) above may complete their standing for a certificate by taking, at one annual examination, or, separately, at different annual examinations the examination, written or practical or both, in the subject or subjects in which they failed.

(b) The pass standard for candidates not in attendance will be the same as that for candidates in attendance, but no allowance will be made for sessional work in the case of those not in attendance.

## CERTIFICATES

A candidate who takes the subjects and passes the examinations therein prescribed above shall be entitled to an Interim Ordinary Household Science certificate which shall be valid in these subjects in any Public, Separate, or High School of the Province, and will be made Permanent on the report of the Inspector or Inspectors concerned that the holder thereof has taught successfully the subjects thereof for at least two years.

The Interim Certificate may be renewed under conditions satisfactory to the Minister.

## COURSES FOR DEGREES IN PEDAGOGY

The Ontario College of Education offers courses of instruction for the degrees in Pedagogy during the regular College Sessions and during Summer Sessions

## DEGREES OF BACHELOR OF PEDAGOGY (B PAED )

The degree of Bachelor of Pedagogy (B Paed ) will be awarded under the following conditions

1 The candidate shall hold an approved degree in Arts, Science, Agriculture, Engineering, or Commerce

2 The candidate shall be in attendance at the Ontario College of Education during two regular College Sessions or three Summer Sessions A High School Assistant's, or First Class, or Second Class certificate valid in Ontario or a regular course in an approved training school for teachers will be accepted in lieu of attendance during one of these regular sessions or one of the Summer Sessions

3 The course shall consist of three subjects to be taken in any order and to be selected from the following

Group A —Science of Education, Educational Psychology

Group B —History of Education, Educational Administration

Not more than two of these subjects shall be taken during a regular Session and not more than one during a Summer Session

Candidates who, under Section 2 above, are exempted from attendance during one regular Session or one Summer Session will be exempted also from the instruction and examination in one of the three subjects, provided that the degree be awarded only to candidates who have taken the instruction and examinations in at least one subject in each of the two groups of subjects

4 The examinations shall be held in May at the University of Toronto or in any other locality in the Province chosen by the candidate and approved by the Senate and under a presiding examiner appointed by the Senate, provided the candidate thereat defray the cost of the local examinations The candidate shall send notice not later than the 15th day of March of his intention to take the examinations and of the locality he has chosen for such examinations

5 The fee for registration is \$5 The fee for the Summer Session is \$10, the fee for the regular Session, which shall include the examination and library fees, is \$25 The fee for examination is \$3 for each subject The fee for the degree is \$20 All fees shall be paid to the Bursar with the application for registration or examination, as the case may be

6 The standard for a Pass degree shall be 60 per cent of the marks assigned to each subject. The candidate who obtains 60 per cent of the marks of each subject, and 66 per cent of the aggregate of marks, shall be awarded a degree with Second Class Honours. The candidate who obtains 80 per cent of the marks of each subject and 75 per cent of the aggregate of marks shall be awarded a degree with First Class Honours. On the report of the instructors concerned, a maximum of 40 per cent of the marks in any subject may be assigned to the term work of the candidate.

7 Subjects of Instruction and Examination

(a) The Science of Education, including a study of the philosophical, ethical, and sociological bases of education. (Two papers.)

(b) Educational Psychology. (Two papers.)

(c) The History of Education in Western Europe and North America in modern times, with special reference to Ontario, Great Britain, and the United States. (Two papers.)

(d) Educational Administration in Great Britain, the United States, France, and Germany, with special reference to the administration and organization of education in Ontario. (Two papers.)

DEGREES OF DOCTOR OF PEDAGOGY (D PAED)

The degree of Doctor of Pedagogy (D Paed) will be awarded by the School of Graduate Studies under the following conditions:

1 The candidate shall hold an approved degree in Arts or Science or in the applied sciences of Agriculture, Engineering, or Commerce.

2 The candidate shall be in attendance at the Ontario College of Education during three regular College Sessions or four Summer Sessions. A High School Assistant's, First Class, or Second Class certificate valid in Ontario, or a regular Course in an approved training school for teachers will be accepted in lieu of the attendance during one of these regular Sessions or one of the Summer Sessions.

3 The Course shall consist of the four subjects and a thesis as defined in Sections 5 and 7. The subjects may be taken in any order, provided that not more than two be taken in any regular Session and not more than one in any Summer Session. Candidates who, under Section 2, are exempted from attendance during one regular Session or one Summer Session will be exempted also from the instruction and examination in one of the four subjects.

4 The examinations shall be held at such times and under such conditions as to date of application, place of examination, percentages, etc., as obtain with the Bachelor's degree.

5 The candidate, after passing the prescribed examinations, shall also submit on or before March 1st a thesis on some educational topic selected with the approval of the Ontario College of Education. In valuing this thesis literary excellence, as well as the discussion of the subject, will be taken into account. After the examiners have reported in favour of the candidate's examinations and thesis, and before the degree of D Paed is conferred, the candidate shall furnish the Secretary of the School of Graduate Studies with twenty-five copies of the thesis.

6 The fee for registration, if not already registered in the B Paed Courses, is \$5. The fee for the Summer Session is \$10, that for the regular Session, which shall include the examination and library fees, \$25. The fee for examination is \$3 for each subject. The fee for the degree is \$25. All fees shall be paid to the Bursar with the application.

#### 7 Subjects of Instruction and Examination

(a) The Science of Education, including a study of the philosophical, ethical, and sociological bases of education. (Two papers.)

(b) Educational Psychology. (Two papers.)

(c) The History of Education in Western Europe and North America in modern times, with special reference to Ontario, Great Britain, and the United States. (Two papers.)

(d) Educational Administration in Great Britain, the United States, France, and Germany, with special reference to the administration and organization of education in Ontario. (Two papers.)

### EDUCATION FELLOWSHIPS

Four fellowships of not less than \$500 each are offered annually to teachers who undertake to pursue graduate work in Education leading to the degree of D Paed or Ph D. On the recommendation of the instructors concerned these fellowships may be renewed for a second year. Applications for these fellowships should be addressed to the Dean of the Ontario College of Education not later than June 1st of each year.





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FACULTY OF FORESTRY

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## BACHELOR OF THE SCIENCE OF FORESTRY

### ENTRANCE REQUIREMENTS

A candidate for admission to the First Year in the Faculty of Forestry must produce satisfactory certificates of good character and of having completed the seventeenth year of his age on or before the first of October of the year in which he proposes to register

He must also present certificates giving him credit in the following subjects of Pass and Honour Matriculation

### PART I—PASS MATRICULATION

ENGLISH (Literature and Composition)

HISTORY (British and Ancient)

MATHEMATICS (Algebra and Geometry)

Any three of

LATIN (Authors and Composition)

GREEK (Authors and Composition)

FRENCH (Authors and Composition)

GERMAN (Authors and Composition)

SPANISH (Authors and Composition) *or*

ITALIAN (Authors and Composition)

EXPERIMENTAL SCIENCE (Physics and Chemistry) *or*

AGRICULTURE

### PART II—HONOUR MATRICULATION

ENGLISH (Literature and Composition)

MATHEMATICS (Algebra, Geometry and Trigonometry)

Any one of

LATIN (Authors and Composition)

FRENCH (Authors and Composition)

GERMAN (Authors and Composition)

In selecting the options it is recommended that students take French or German in Part II

Admission may also be secured by candidates who (1) possess a degree in Arts from any Canadian, British or American university of approved standing, (2) come from other institutions whose certificates are recognised by the University of Toronto as equivalent to the above entrance requirements, and will be accepted *pro tanto*, or (3) have completed a year, or the examinations for the year, with satisfactory standing, in the Faculties of Arts, Medicine or Applied Science

In addition to the academic requirements, a robust physique and good eyesight are essential in the practice of the profession, and candidates markedly deficient in these will be advised not to proceed. Deficiency in eyesight will be found a particular handicap in future practical employment

*Occasional Students* may be admitted to not more than three forestry subjects

#### REGISTRATION AND ENROLMENT

Applications for admission, together with matriculation or equivalent certificates, should be forwarded to the Registrar of the University at as early a date as possible

Students must complete their registration in person on or before the first day of the session, September 30th. On the same or the preceding day students will enrol with the instructors in their various courses

Students who have not complied with the regulations for registration and enrolment may be admitted only upon petition to the Faculty and for good reasons. They may be refused enrolment with classes unless the head of the department is satisfied that they are able to go on with the class. A charge will be made for late registration

#### REGULATIONS RELATING TO STUDENTS IN ATTENDANCE

No student will be enrolled in any year, or be allowed to continue in attendance, whose presence is deemed by the Council of the Faculty to be prejudicial to the interests of the University

Students proceeding regularly to the degree are required to attend the courses of instruction and the examinations in all subjects prescribed for students of their respective standing, and no student will be permitted to remain in the University who persistently neglects academic work

Unless special permission is granted by the Council, a student who, at the close of two sessions in the University, has failed to secure standing in his year, will not be permitted registration in the Faculty of Forestry

The Students' Administrative Council has been entrusted by the Caput with supervision of the conduct of the students, and has power, subject to the approval of the Caput, to deal with violations of the regulations governing conduct

Any student who may be convicted of having taken part in a parade or procession through the city which has not been authorized by the police authorities, after application by the Executive of the Students' Administrative Council, will be severely disciplined

All interference on the part of any student with the personal liberty of another by arresting him, or summoning him to appear before any unauthorized tribunal of students, or otherwise subjecting him to any indignity or personal violence, is forbidden by the Caput

A student who is under suspension, or who has been expelled from a College or from the University, will not be admitted to the University buildings or grounds

The constitution of every University society or association of students in the Faculty of Forestry and all amendments to any such constitution

must be submitted for approval to the Council of the Faculty. All programmes of such societies or associations must, before publication, receive the sanction of the Council of the Faculty through the President. Permission to invite any person not a member of the faculty of the University to preside at or address a meeting of any society or association must be similarly obtained.

The name of the University is not to be used in connection with a publication of any kind without the permission of the Caput.

## FEES

### *Regular Students in Forestry*

First, Second, Third and Fourth Years. Annual fee, including instruction, main library, laboratory supply, and one annual examination, \$80 00

If paid in full in October	\$80 00
By instalments —	
First instalment, if paid in October	40 00
Second instalment, if paid in January	41 00

### *Occasional Students*

The fee for occasional students is \$5 00 for the term for each course taken.

### *Penalties*

After October 31st, a penalty of \$1 00 per month will be imposed upon tuition fees until the whole amount is paid. In the case of payment by instalments the same rule as to penalty will apply.

Students attending Fall Practice Camp will be allowed until November 15th to pay fees. Fees for Practice Camp, however, are due September 30th.

### *General Fees*

Annual deposit for the departmental library	\$ 1 00
Supplemental Examinations	10 00
Admission ad eundem statum.	10 00
Degree of B Sc F	10 00
Degree of F E	20 00

To defray expenses of the practice camp a deposit of approximately \$70 00 will be required from Fourth Year students.

### *Foresters' Club*

Annual fee	\$2 00
Fee, Forestry Athletic Association	2 00

*Hart House, Students' Administrative Council and  
Physical Training*

Hart House, annual fee	\$8 00
Students' Administrative Council, annual fee	3 00
Physical Training, annual fee, First and Second Years only	5 00

Every male student in attendance, proceeding to a Bachelor's degree in the Faculty of Forestry, is required to pay to the Bursar before December 1st the annual fee of eight dollars for the maintenance of Hart House. If this fee is not paid by the above date a penalty of two dollars will be imposed, making the total fee ten dollars.

Every male student in attendance proceeding to a Bachelor's degree in the Faculty of Forestry is required to pay to the Bursar at the time of the entry of his name with the Registrar the annual fee of three dollars for the maintenance of the Students' Administrative Council.

All fees are payable in advance.

A student may not be admitted to any of the University lectures or laboratories who is in arrears for his fees.

A student is responsible for complete fees for the year, even for partial attendance, unless he submits a written statement of his withdrawal to the Dean. Any candidate for a degree must pay full fees for the year in which he is in attendance upon any one or more courses.

DEGREES

The satisfactory completion of the four-year course leads to the degree of Bachelor of the Science of Forestry (B Sc F).

The Faculty of Forestry grants the degree of Forest Engineer (F E) to the graduates holding the degree of B Sc F, who, after three years' employment in forestry work, present an acceptable thesis, the details to be arranged and the subject to be previously approved by the Faculty.

SCHOLARSHIPS

Forestry graduates are eligible as candidates for the 1851 Exhibition Science Research Scholarship. Information with regard to this is given on pages 75 and 77 of the calendar of the Faculty of Arts.

PHYSICAL TRAINING

By order of the Board of Governors each male student proceeding to a degree must take Physical Training in the first and second years of his attendance. He must first undergo a medical examination by the Physical Director of the University in order to determine the character of his training.

It is specially desired that students obtain training in swimming.

No student will be allowed to write on the annual examination who has not paid all fees and dues for which he is liable. A student who fails to perform the work in his course in a manner satisfactory to his instructors will not be allowed to present himself at the final examinations except by special permission of the Council.

The standard for pass in these examinations in all courses, whether taken in the Faculty of Forestry or any other Faculty, is 50 per cent of the marks for each subject.

In making up the final standing of each candidate much consideration will be given to the character of his work through the term, including attendance, laboratory and field work, reports and term examinations.

Candidates who fail at the annual examinations in *more than two subjects* cannot proceed to the next year unless they have attained at least 70 per cent on the average in all other subjects, when their case will be specially considered.

Candidates who fail in one or two subjects at the annual examinations, only one of which may be a forestry subject, may be allowed to take supplemental examinations in such subjects. These supplemental examinations must be taken in Arts subjects in September at dates set by the Faculty of Arts, in forestry subjects before December 15th. Students who are prevented by fieldwork or by sickness from writing in September may be permitted to write in January.

Candidates are required to send to the Secretary of the Faculty at least three weeks before the date of supplemental examinations, notice in writing of their intention to take such examinations, and at the same time the fee of \$10 (both September and January supplemental examinations) must be paid to the Bursar, and no student will be allowed to write who has failed to pay this fee.

If a candidate fail to pass a supplemental examination in a subject which is not basic to other subjects, he may carry it upon petition until the next examination, but if it be a subject fundamental to a subject of the year to which he wishes to advance he must take the subject over again (and if he fail in any three subjects he will be obliged to repeat the year). A student failing in laboratory work must repeat the same.

No candidate for a degree will be allowed to pass into the next higher year who has not fulfilled all the requirements of the next lower year.

## INSTRUCTORS AND COURSES IN FORESTRY

Courses other than forestry are given in the Faculties of Arts, and Applied Science and Engineering.

C. D. HOWE, M A , Ph D ,  
*Dean and Professor*

J. H. WHITE, M A , B Sc F , Ph D ,  
*Associate Professor*

W N MILLAR, B Sc, M F,  
*Associate Professor*  
 T W DWIGHT, B Sc F, M F,  
*Associate Professor*

OTHER FACULTIES

F B ALLAN, M A, Ph D,  
*Professor of Organic Chemistry*  
 L ALLEN, Ph D,  
*Assistant Professor of French*  
 J G ANDISON, B A, A M,  
*Lecturer in French*  
 J W BAIN, B A Sc, F I C,  
*Professor of Chemical Engineering*  
 E W BANTING, B A Sc,  
*Assistant Professor of Surveying*  
 E F BURTON, B A, Ph D,  
*Associate Professor of Physics*  
 J H CAMERON, M A,  
*Professor of French*  
 J R COCKBURN, B A Sc,  
*Associate Professor of Descriptive Geometry*  
 S R CRERAR, B A Sc,  
*Assistant Professor of Surveying*  
 J H FAULL, B A, Ph D,  
*Professor of Botany*  
 H W A FOSTER, LL B,  
*Lecturer in Commercial and International Law*  
 L GILCHRIST, M A, Ph D,  
*Assistant Professor of Physics*  
 G E JACKSON, B A,  
*Associate Professor of Political Economy*  
 F B KENRICK, M A, Ph D,  
*Professor of Chemistry*  
 H A McTAGGART, M A, B A,  
*Assistant Professor of Physics*  
 E S MOORE, M A, Ph D,  
*Professor of Economic Geology*  
 W A PARKS, B A, Ph D,  
*Professor of Palaeontology*  
 A L PARSONS, B A,  
*Associate Professor of Mineralogy*



J SATTERLY, M A, D Sc,  
*Associate Professor of Physics*

J E THOMSON,  
*Assistant Professor of Mineralogy*

E M WALKER, B A, M B,  
*Associate Professor of Biology*

#### PLAN OF INSTRUCTION

The regular course leading to the degree of Bachelor of the Science of Forestry is a four-year course, the first two years of which are mainly devoted to the study of the fundamental subjects. The last two years are mainly occupied with forestry subjects, there being also time allowed, especially in the last year, to add general educational subjects and to specialize in different directions under advice of the Dean.

Students are required to take either French or German and the language chosen must be continued for three years.

The courses are distributed through the four years as follows —

*Note*—Numbers after the subjects refer to numbers of the courses as designated in the Calendars of the Faculties of Arts, Forestry, and Applied Science and Engineering, according to the Faculty in which the course is given. The work is stated in terms of the number of lecture or laboratory periods per week.

#### I YEAR

- 1 *Elementary Physics* (Arts 28) Two lectures and one laboratory period through the session
- 2 *Elementary Chemistry* (Arts 1, 14) Two lectures and one laboratory period through the session
- 3 *Elementary Botany* (Arts 5 and 6) Two lectures and two laboratory periods, first term.
- 4 *Elementary Zoology* (Arts 5 and 6) Two lectures and two laboratory periods, second term
- 5 *French* (Arts, *Special*) or *German* (Arts 1b) Two lectures through the session
- 6 *Elementary Forestry* (Forestry 1) One lecture through the session
- 7 *Descriptive Dendrology* (Forestry 2a) Three hours lecture and laboratory work through the session, Saturday field work first term

#### II YEAR

- 1 *Elementary Organic Chemistry* (Arts 3) Two lectures through the session
- 2 *Elementary Geology* (Applied Science and Engineering 195) Two lectures through the second term

- 3 *Mineralogy* (Applied Science and Engineering 257 and 259) Twenty-five lectures and forty hours laboratory
- 4 *Surveying, Plane, and Map Drawing* (Applied Science and Engineering 270, 271) One lecture and two laboratory periods through the session
- 5 *French* (Arts, *Special*) or *German* (Arts 2b) Two lectures through the session
- 6 *Forest Mensuration* (Forestry 7a) Two lectures and one half day field or office work through the session
- 7 *Dendrology* (Forestry 2b) Three hours laboratory work through the session
- 8 *Biological Dendrology* (Forestry 5) Two lectures and two laboratory periods through the session

#### SUMMER WORK

- 9 Employment in the field by Dominion or Provincial government or by private companies

#### III YEAR

- 1 *Glacial Geology and Physiography* (Arts 18) One lecture through the session
- 2 *Principles of Economics* (Arts 3e) Two lectures through the session
- 3 *Commercial Law* (Arts 4e) One lecture through the session
- 4 *Surveying, Topographical and Map Drawing* (Applied Science and Engineering 272, 273) One lecture and three laboratory periods through the session
- 5 *French* (Arts, *Special*) or *German* (Arts 3a) Three lectures through the session
- 6 *Forest Mensuration* (Forestry 7b) One lecture and one laboratory period through the session
- 7 *Silvics* (Forestry 9) Two lectures through the session
- 8 *Silviculture* (Forestry 6a) Three lectures first term  
*Silviculture* (Forestry 6b) Two lectures second term One week at Provincial Forest Station and nursery  
*Silviculture* (Forestry 6c) Fifteen hours laboratory work
- 9 *Forest Utilization* (Forestry 8a) Three lectures through the session and ten days' trip to logging camp during the Christmas vacation, beginning December 19

#### SUMMER WORK

- 10 Employment in the field by Dominion or Provincial government or by private companies

#### IV YEAR

- 1 *Applied Chemistry* (Applied Science and Engineering 112) One lecture through the session

- 2 *Plant Pathology* (Arts 25) Seventy-five hours lecture and laboratory work, second term
- 3 *Economic Entomology* (Arts 37) Two lectures and two laboratory periods through the second term
- 4 *Forest Organisation* (Forestry 11) One lecture through the session, ten seminars, second term
- 5 *Forest Valuation and Finance* (Forestry 12) One lecture through the session, theory and problems
- 6 *History of Forestry* (Forestry 13) One lecture through the session
- 7 *Forest Administration* (Forestry 14a and 14b) One lecture through the session
- 8 *Forest Protection* (Forestry 10a and 10b) One lecture through the session and one week at practice camp at opening of session
- 9 *Forest Utilization* (Forestry 8b) One lecture through the session and one afternoon weekly for visits to wood-using plants
- 10 *Forest Utilisation* (Forestry 8c) One lecture through the session
- 11 *Forest Mensuration* (Forestry 7c) Three weeks field work at practice camp at opening of session
- 12 *Wood Identification and Timber Physics* (Forestry 4a) Two lectures and six hours laboratory work first term
- 13 *Wood Technology* (Forestry 4b) One lecture second term
- 14 *Forest Geography* (Forestry 3) Two lectures through the session

#### FIELD WORK

The Third Year students are required to spend a week or ten days of the Christmas vacation in lumber camps for the purpose of becoming acquainted with the methods of their management. A report on the results of such inspection visits will be required.

At or near the end of the spring term the Provincial Forest Station at St. Williams, Ontario, will be visited for a week by the Third Year students in connection with the course in Silviculture. This work forms an integral part of the course and constitutes a requirement for the degree.

Six weeks at the beginning of the Fourth Year will be spent at the Forest School Practice Camp in Algonquin Park. During this time timber estimating, tree measurements, studies of rate of growth, forest description and forest survey, the making of working plans, and other practical woods work will occupy the students. The students must report at the Camp on September 30, 1924.

The students are required to pay their own expenses at the camp. Board is furnished at cost. Last year this averaged \$1.50 a day. The railway fares will amount to about \$20 from Toronto and return for the camp at the beginning of the Fourth Year. The visit to the logging camps in the Third Year costs about \$50, and the trip to the Provincial Forest Station at St. Williams approximately \$20.

## DESCRIPTION OF COURSES

1 *Elementary Forestry* The course is intended to give the student an understanding of the general principles of forestry as a science, an art, a business and a state policy, with applications to Canadian conditions 25 hours Prof Howe

2 *Descriptive Dendrology* A taxonomic study (2a) of the native forest trees, and (2b) of important foreign timber trees and more commonly cultivated species, laying special stress on the characteristics which lead to the recognition of the species in the field, with practice work in securing familiarity with morphological and other characteristics for identification 100 hours laboratory and 50 hours field work Prof White

3 *Forest Geography* The geographical distribution, botanical composition and character of forests of the world, and of Canada in particular, with special reference to the ecological factors, climate and soil, influencing forest growth Field practice in recognizing forest types and in making forest descriptions at the practice camps 50 hours Prof Howe

4a *Wood Identification and Timber Physics* Wood structure with a view to identification of the different woods physical and mechanical properties, relation of properties 85 hours Prof White

4b *Wood Technology* Technical properties and uses of Canadian woods and of their competitors, and of the commonly imported tropical woods Statistical study of the lumbering and pulp and paper industries 20 hours Prof White

5 *Biological Dendrology* Life history, laws of growth of trees, their dependence on ecological factors and silvicultural requirements of different species Lectures and laboratory work 150 hours Prof White

6 *Silviculture* (a) Principles and practice of the art of forest production and forest improvement, methods of natural reproduction (b) Artificial regeneration and nursery practice (c) Identification of tree seeds and seedlings 75 hours and practice work Prof White

7a *Forest Mensuration* Methods of ascertaining the contents of logs and trees, scaling, tree form, construction and use of volume tables, timber estimating Lectures, recitations, field and office work Two hours through the session and one half day of field or office work Chapman's *Forest Mensuration* is used as a textbook Prof Dwight

7b *Forest Mensuration* Methods measuring the growth and yield of trees and stands One hour lecture and one laboratory period through the session Chapman's *Forest Mensuration* is used as a textbook Prof Dwight

7c *Forest Mensuration* Field practice in forest surveying, topographic mapping and timber estimating on a large scale, location of survey lines and corners, field methods of measuring logs and trees for volume and taper tables, stem analysis and growth measurements Three weeks in fall practice camp in Northern Ontario Prof Dwight

8a *Forest Utilization* Organization of logging operations, methods of logging employed in various regions of Canada and the United States,

minor woods industries related to lumbering, logging regions of Canada Three hours through the session and ten days field work during Christmas vacation in a logging camp Bryant's *Logging* is used as a reference Prof Millar

8b *Forest Utilization* Equipment and operation of lumber manufacturing plants, pulp and paper mills, wood distillation, cooperage and box making, veneers and other important wood-using industries One hour through the session and one half day for trips to typical wood-using plants Prof Millar

8c *Forest Utilization* Seasoning and grading of lumber, timber preservation, fire proofing, the lumber industry, customs and usages, lumber shipping and inspection, lumber associations, timber appraisal One hour lecture through one session and occasional visits to local lumber yards, dry kilns and timber-treating plants Prof Millar

9 *Silvics* The life history of the forest, influence of the environmental factors, the laws of invasion and succession, the basis of differentiation of forest types 50 hours Prof Howe

10a *Forest Protection* Methods of guarding against injury to forests by wind, frost, insects, trespass and other miscellaneous injurious agents, protection of forests from fire, organization of forest protection forces, cooperative forest protection in Canada, equipment, construction and use of forest improvements, roads, trails, telephone lines, lookout systems, aerial patrol, fire-fighting One hour of lectures through the session Prof Millar

10b *Forest Protection* Construction, operation and maintenance of forest telephone lines, use of heliographs, flags, signal lanterns and wireless telephones in forest protection, signal codes, relation of system of communication to the organization of protection forces and the detection and suppression of forest fires One week of lectures and field work at practice camp in Northern Ontario Prof Millar

11 *Forest Organization* Principles and methods underlying the preparation of working plans for continuous wood and revenue production 35 hours Prof Dwight

12 *Forest Valuation and Finance* Methods of ascertaining money value of forest growths and application of the principles of finance to forest management 25 hours Prof Dwight

13 *History of Forestry* Historical development of the economic and technical features of modern forestry at home and abroad 50 hours Prof Howe

14a *Forest Administration* Fundamental principles of administrative organization, selection and training of a forest personnel, civil service commissions, forest administrative organizations of Canada One hour of lectures for one term Prof Millar

14b *Forest Administration* Laws and regulations under which forests are administered and protected by the Dominion Government and the various Provinces of Canada One hour of lectures for one term Forest Acts and Regulations of the Federal Government and the Provinces are used as texts Prof Millar

#### OPENINGS FOR FORESTERS

To meet the many inquiries of students contemplating the choice of forestry as a profession the following statements may serve

Openings for foresters may be found in four or five directions, namely, government employ, private employ, private enterprise, teaching, and other business

The Dominion Forestry Branch, which has charge of the Dominion timber lands in Alberta, Saskatchewan, Manitoba, part of British Columbia, and the unorganized territories, is employing graduates to do the technical work in exploring and classifying lands for forest reservations, surveying, mapping and determining contents of such reservations, organizing a forest fire service, controlling the grazing, timber sales and logging, and generally providing for an administration of forest reservations, of which there are now a dozen, under supervisors These will have to work out the details of a forest management The Forestry Branch maintains large nurseries from which tree material is distributed for planting in the prairies, a staff of experts attend to the growing and distribution of tree seedlings, and inspect the planting Other field work with the Dominion Forestry Branch consists in silvicultural investigations Statistical and technological investigations are carried on and results published at the main office in Ottawa and its Forest Products Laboratories at Montreal Nineteen of our graduates are employed by the Dominion Forestry Branch

The Provincial Forestry Branch of Ontario has charge of about 100,000,000 acres of forest lands and these are being gradually organized into districts for administrative purposes The Branch maintains a Forest Station and large nursery at St Williams, in Norfolk County, where there are as well large plantations of various ages The Province is inaugurating an extensive reforestation programme for the waste lands in which eventually thousands of acres will be planted and this will require an increasing number of men trained in silvicultural work At present the Provincial Forestry Branch employs thirty graduates of the School

The Quebec government has for some time organized and developed a forest service, but it provides its own technical men

A number of paper manufacturing companies have for some years availed themselves of the services of foresters, to survey, map and plan operations of their forest properties Timber limit holders have employed such for similar purposes, and the time is not far distant when there will be a more general development in this direction Fourteen graduates are in the employment of pulp and paper companies

Besides the permanent employment for graduates by the Dominion Forestry Branch, the Provincial Forestry Branch, and by private companies, undergraduates find temporary employment during the summer vacation from all three of these organizations, chiefly in surveying, mapping and estimating work. The salaries for graduates are more or less standardized by the Dominion Civil Service. They begin at \$1,320 and pass rapidly to \$1,680, when advancement is slower. The more successful men reach \$3,000 to \$3,500 in about ten years. With these salaries, from the beginning, go certain allowances for expenses which materially increase their actual value. During the summer months the undergraduates receive from \$70 to \$100 per month, according to experience, exclusive of field expenses.

Altogether, however, it needs to be understood that there will always be only a limited demand for high grade professional men, at least for some time to come, and only those with a special love and aptitude for the arduous work which is largely involved should enter the profession.

Besides the directions above outlined as offering employment for foresters, the education of foresters is such as to prepare them for transferring readily into other employment, such as park superintendents, landscape architects, nursery work, horticulture, and lumberman's business in its various phases.

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FACULTY OF MUSIC

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## DEGREE OF BACHELOR OF MUSIC

The degree of Bachelor of Music (Mus Bac) will be conferred by the University of Toronto upon students of music, on compliance with the requirements of the curriculum in music which may from time to time be prescribed by the Senate

## MATRICULATION

Notice is hereby given that beginning with the Session 1926-1927 complete pass matriculation will be required of the candidates in this Faculty

The subjects for matriculation in Music for the session 1924-1925 will be English and two of Greek, Latin, German, French, Italian or Spanish

The courses of study prescribed for matriculation in each of these subjects will be found in the Curriculum for Junior Matriculation, a copy of which may be obtained on application to the Registrar of the University

A candidate for the degree of Bachelor of Music must complete his matriculation prior to admission to the examination of the final year

Special application for Matriculation may be dealt with by the Senate

## REGISTRATION

Every student shall, in each year of his course, register his name with the Secretary of the Faculty of Music not later than the first of November

After the first of November registration can be effected only by petition to the Faculty and on payment of a fine of One Dollar a month for each month after October

## UNDERGRADUATE COURSE

In addition to Matriculation the candidate must have passed three examinations before the degree of Bachelor of Music shall be granted

FIRST YEAR

- 1 Harmony in three and four parts
- 2 Counterpoint in two and three parts
- 3 The History of Music from 1600 to 1800

SECOND YEAR

- 1 Harmony in not more than four parts
- 2 Strict Counterpoint (including the treatment of the various species in combination) in not more than four parts
- 3 Double Counterpoint at the octave, in two parts
4. Canon in two parts
- 5 Fugue as far as subject and answer
- 6 The History of Music from 1800 onwards
- 7 Musical Form as far as the simple forms and analysis of the musical sentence

FINAL YEAR

A THEORY OF MUSIC

- 1 Harmony in not more than five parts, including some original work,
- 2 Counterpoint, strict and free, in not more than five parts
- 3 Canon in two and three parts
- 4 Double Counterpoint at the octave, 10th, 12th and 15th
- 5 Imitation and Fugue up to four parts
- 6 A general survey of the History of Music from the earliest times to the present (Text-books recommended, Bonavia Hunt's History of Music and Lavignac's Music and Musicians, but see also list on page 10)
- 7 Elements of Acoustics
- 8 Musical Form in general
- 9 Orchestration
- 10 Viva voce —Analysis of full score, from standpoints of orchestration and form, of one of the following Beethoven's Symphony, No 8, Dvorak's String Quartette in A flat, op 105 (These works are available in the convenient form of the *Eulenburg Mmature Scores* )

11 There will also be required an original composition, either sacred or secular, containing at least four movements and sufficiently long to occupy from fifteen to twenty minutes in performance. This must be

- (a) A chorus in five parts, with a short instrumental introduction
- (b) A recitative and solo
- (c) A quartette or quintette for voices only
- (d) A four part vocal fugue

Numbers (a), (b) and (d) must have accompaniments for string orchestra only

This composition must be sent to the Secretary of the Faculty not later than April 1st accompanied by a declaration that it is the candidate's own unaided work

Candidates for the degree may defer presenting this composition until a subsequent annual examination, in which case the fee for examination shall be \$10

## B PRACTICAL MUSIC

Candidates shall be required to play—on the piano or some orchestral instrument—or sing —

Two or three compositions (or portions of them), selected by the examiner. They shall also be required to play, at the keyboard, the following tests, etc. —

- 1 Transposition
- 2 Extemporization upon a given theme
- 3 Modulation

Equivalent tests will be imposed for singers, or players upon orchestral instruments

In the case of those candidates who have obtained Licentiate standing in the University of Toronto or in the Toronto Conservatory of Music requirements (11) and (B) will not be exacted but there will be required instead a short original composition in one of the following forms

- (a) A Solo Song with Pianoforte Accompaniment
- (b) A Four-part Vocal Composition
- (c) An Instrumental Composition (other than a Dance) for the Pianoforte or Organ, or for any Stringed or Wind Instrument with Pianoforte or Organ Accompaniment

The Senate may admit *ad eundem statum* undergraduates of other Universities after due inquiry as to the requirements demanded by the institutions in which the candidates obtained their standing

## EXAMINATIONS

The examinations will take place at times to be fixed by the Senate

Applications accompanied by the proper fee must be transmitted to the Secretary of the Faculty before the first of April (Cheques should be made payable to the University of Toronto)

The total number of marks necessary to pass on any subject is 60, second class honours, 70, first class honours, 80, maximum, 100

## FEES

Matriculation		\$10 00
Registration and Lecture Fees (Annual)	\$5 00 each	10 00
Each examination subsequent to matriculation		10 00
For admission <i>ad eundem statum</i>		10 00
Degree of Mus Bac		20 00
Lecture Fee for Occasional Students, \$2 00 for each subject, covering all subjects, fee		5 00

## SUGGESTED LIST OF TEXT-BOOKS

*Rudiments and Harmony*

Musical Rudiments—Leo Smith (Boston Music Co )

Rudiments of Music and Elements of Harmony—Albert Ham (Novello)

Elements of Harmony, Books i, ii and iii—Kitson (Oxford University Press)

Harmony—Prout (Augener)

The Evolution of Harmony—Kitson (Oxford University Press)

Harmony, Parts i, ii and iii—Anger (Boston Music Co )

*Counterpoint*

Primer of Counterpoint—Bridge (Novello)

Students' Counterpoint—Pearce (Winthrop Rogers)

Counterpoint—Prout (Augener)

The Art of Counterpoint —Kitson (Oxford University Press)

Modern Academic Counterpoint—Pearce (Winthrop Rogers)

*Double Counterpoint, Canon and Fugue*

Primer of Fugue—Higgs (Novello)

Fugue—Prout (Augener)

Fugal Analysis—Prout (Augener)

Studies in Fugue—Kitson (Oxford University Press)

Double Counterpoint and Canon—Prout (Augener)

Double Counterpoint and Canon—Bridge (Novello)

*Form and Composition*

- Form in Composition—Anger (Boston Music Co )  
 Musical Form—Prout (Augener)  
 Composition—Stainer (Novello)  
 Musical Composition—Stanford (The Macmillan Co )  
 Composition—Corder (Curwen)  
 Analysis of Form—Harding (Novello)  
 Analysis of Bach's 48 Preludes and Fugues—Iliffe (Novello).

*History*

- History of Music—Bonavia Hunt (Bell & Sons)  
 History of Music—Naumann (Cassell & Co )  
 History of Music—Rockstro (Robert Cocks)  
 Summary of Musical History—Parry (Novello)  
 Evolution of the Art of Music—Parry (Keegan Paul)  
 The Growth of Music, Books i, ii and iii—H C Colles (Oxford University Press)  
 Music and Musicians—Lavignac (Henry Holt)  
 Modern Musicians—Hadden (T M Foulis)  
 Articles in Grove's Dictionary

*Orchestration*

- Primer of Instrumentation—Prout (Novello)  
 On Scoring for an Orchestra—Vincent (Vincent).  
 Instrumentation—Berlioz (Carl Fischer)  
 Choral Orchestration—Cecil Forsyth (H W Gray Co )

*Acoustics*

- Acoustics for Musicians—P C Buck (Oxford University Press)  
 Scientific Basis of Music—Stone (Novello)  
 Sound and Music—Sedley Taylor (The Macmillan Co )  
 Science of Music—Sedley Taylor (The Macmillan Co )  
 Sound—Tyndall (D Appleton & Co )

Candidates are not restricted to the above list, which is only suggested  
 The paper work is judged irrespective of any particular author or school

## DEGREE OF DOCTOR OF MUSIC

Candidates for the degree of Doctor of Music must be Bachelors of Music of this or another university of at least three years' standing. Every candidate shall register his name with the Secretary of the Faculty not later than the first of November.

Candidates must present a musical exercise by the first day of April for submission to the examiners in Music, the approval of which is a necessary preliminary to further examination.

The exercise must be of the nature of a Cantata, sacred or secular, scored for full orchestra, and requiring from 40 to 60 minutes for its performance. The cantata must include an overture and parts for one or more solo voices, in addition to choruses.

If the exercise be approved the candidate must undergo an examination of a more advanced character than is involved in the Mus. Bac. examination in Harmony, Counterpoint, Fugue, Musical Form, Orchestration, and Musical History.

The fee for the examination is fifty dollars, divided as follows: Reading exercise, twenty-five dollars, practical and theoretical examinations, twenty-five dollars.

The fee for the degree is thirty dollars.

The examinations will take place at times to be fixed by the Senate.

Applications accompanied by the proper fee must be transmitted to the Secretary of the Faculty before the first of April. (Cheques should be made payable to the University of Toronto.)



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SCHOOL OF GRADUATE STUDIES

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## GENERAL REGULATIONS

## ADMISSION

1 Advanced courses of instruction and facilities for research are offered to students who are graduates of any University or College of recognized standing

2 Admission to these advanced courses, or to the privileges of research, does not in itself imply admission to candidacy for a higher Degree

## REGISTRATION

3 Application for registration as a graduate student must be made to the Secretary of the School of Graduate Studies not later than the 5th of October in any year, and the application must be accompanied by statements of the applicant's degrees, of the courses pursued as an undergraduate and his standing therein, and of the courses he wishes to pursue

## DEGREES

4 The Degrees which the University of Toronto offers to graduate students are those of Doctor of Philosophy, Master of Arts, Doctor of Medicine and Master of Surgery, Master of Applied Science, Master of Architecture, Civil Engineer, Mining Engineer, Mechanical Engineer, Electrical Engineer, Chemical Engineer, Doctor of Pedagogy and Forest Engineer

REGULATIONS FOR THE DEGREE OF  
DOCTOR OF PHILOSOPHY

5 A candidate for the Degree of Doctor of Philosophy must have been regularly registered as a graduate student in this University in accordance with the provisions of Section 3 Registration must be repeated at the beginning of each year of the course

6 The candidate shall, as a registered graduate student, have pursued in this University for at least three years, under the direction of some one department, an advanced course of study, which must be approved by the committee administering the regulations governing the degree of Doctor of Philosophy Exemption from one of the three years required may be granted by the committee, on the report of the department concerned, to a candidate who has furnished satisfactory evidence of having pursued for at least one year a course of advanced study in his major subject

at another University, or who, at graduation as Bachelor of Arts in this University, has obtained First Class Honours in a special course, covering one year of advanced study, approved by the committee

It must be clearly understood, however, that the Degree is granted only to such students as give evidence of general proficiency, power of investigation and high attainments in the special field in which the major work is done

7 A statement of the course of study proposed must be sent to the Secretary of the School of Graduate Studies not later than the 1st of November of the first year of registration and must be accompanied by the approval of the departments concerned

8 The course shall include the study of a special subject, termed the major subject, and of two other subjects, termed the minor subjects. Only one minor subject shall be selected from the group of subjects of the department which includes the major subject. The time devoted to the two minor subjects should not exceed two-thirds of that required for the major subject

9 The candidate must have an adequate knowledge of French and German. For special reasons the substitution of another foreign language for one of these will be permitted. In some departments a knowledge of Latin is also essential

10 At a time to be determined by the committee administering the regulations governing the degree of Doctor of Philosophy on the advice of the department or departments concerned, the candidate shall undergo written and oral examinations both on his major subject and on his minor subjects, conducted by the departments in which the major and minor subjects are included. The examiners may dispense with written examinations in one or both minor subjects provided they are satisfied, from the candidate's record, that he has a competent knowledge of such subject or subjects. Such dispensation must be reported to the Council of the School of Graduate Studies

11 The candidate shall present, either during his course of study or at the completion of it, a thesis embodying the results of an original investigation, conducted by himself, on some approved topic selected from his major subject

12 The acceptance of the thesis shall be determined by the committee administering the regulations governing the degree of Doctor of Philosophy on the report of the department which includes the major subject. This report shall state, in terms to be approved by the Council, whether the thesis complies with the conditions prescribed by this University, and, in the judgment of the department, is worthy of publication, and whether the department recommends that the thesis be accepted in conformity with the requirements for the Degree of Doctor of Philosophy

13 On the acceptance by the committee administering the regulations governing the degree of Doctor of Philosophy of the thesis submitted by a candidate, and of favourable reports from the departments in which his major and minor subjects have been taken, he shall be deemed to have fulfilled the requirements for the Degree in so far as his knowledge of those subjects is concerned. The candidate shall then be required to undergo an oral examination before the Council of the School of Graduate Studies in order to establish his general fitness for the Degree.

14 Before the Degree is conferred upon a candidate he must, subject to the approval of the committee administering the regulations governing the degree of Doctor of Philosophy, make such arrangements as will ensure the publication of the thesis, and the presentation within a specified time of such number of copies as the committee may direct. Each printed copy shall, on its title page, contain the words "A thesis submitted in conformity with the requirements for the Degree of Doctor of Philosophy in the University of Toronto."

15 On the report of the Council of the School of Graduate Studies that all the requirements have been complied with, the Senate may, either at a Convocation or at any one of its regular meetings, confer on the candidate the Degree of Doctor of Philosophy.

#### REGULATIONS FOR THE DEGREE OF MASTER OF ARTS

16 A candidate for the Degree of Master of Arts must have been regularly registered as a graduate student in this University in accordance with the provisions of Section 3. Should the course of study extend over more than one year registration must be repeated at the beginning of each year.

17 If not registered as a graduate student at the beginning of the academic year, as provided in the regulations given above, the candidate shall not be eligible for the degree in the following June.

18 A statement of the course of study or the subject of the thesis proposed, must be sent to the Secretary of the School of Graduate Studies not later than the 1st of November, and must be accompanied by the approval of the department or departments concerned.

19 Attendance during at least one session is obligatory on candidates for the Master's Degree, but dispensation from such attendance may be granted to graduates of the University of Toronto if the department or departments concerned, from direct knowledge of the candidate's attainments, recommend such dispensation on special grounds.

20 A candidate will proceed to the Degree under one or the other of the following sets of regulations according as he is a Bachelor of Arts in an Honour Course or a Bachelor of Arts in the Pass Course. If accepted as a candidate, a graduate of another University or a graduate of a faculty other than that of Arts, shall be assigned, on the basis of his qualifications, for the purpose of this clause, to one or the other of these classes.

## I BACHELOR OF ARTS IN AN HONOUR COURSE

Candidates may qualify for the Degree

(a) By the pursuit for at least one year of an approved course of study and the passing of a satisfactory examination therein. A course of study shall not be approved unless (1) it is a continuation of a course previously pursued for graduation, or (2) it has been recommended by the department concerned on account of other special qualifications possessed by the candidate. In this latter case the course will normally extend over at least two years.

(b) By presenting a thesis embodying the results of some special study or investigation and adjudged to be of sufficient merit. The thesis shall be accepted only on the approval of the department or departments concerned. The candidate shall be required to pass an examination, written or oral, or both written and oral, conducted by the department or departments concerned, on the subject of the thesis and on his general knowledge of the subject of the department or departments. This examination shall not be held earlier than six months after the date of registration, and two printed or typewritten copies of the thesis submitted must be presented to the Secretary of the School of Graduate Studies at least two weeks before the examination takes place. If the candidate is to be eligible for the degree in June the thesis must be presented not later than the 1st of May.

## II BACHELOR OF ARTS IN THE PASS COURSE

Candidates may qualify for the Degree

(a) By the pursuit for at least two years, under the direction of one department, of an approved course of study and the passing of a satisfactory examination therein. No course of study shall be approved unless it is based on courses which have been taken for at least three years in the undergraduate course.

(b) Under exceptional circumstances only, a Bachelor of Arts in the Pass Course may be permitted to proceed to the degree of Master of Arts by thesis, in accordance with the regulations in clause 20, I (b). Candidates must be of at least two years' standing as Bachelor of Arts.

Graduates in Arts of this University, who have fulfilled all the requirements for the Degree of Doctor of Philosophy may, on payment of the fee for the Degree of Master of Arts, be admitted to that Degree without further examination. Graduates in Arts of another University, or graduates in other Faculties of this or another University, who have fulfilled all the requirements for the Degree of Doctor of Philosophy may, on special recommendation to that effect by the departments concerned, also be admitted to the Master's Degree without further examination, on payment of the fee for that Degree.

REGULATIONS FOR THE DEGREE OF  
DOCTOR OF MEDICINE AND MASTER OF SURGERY

The Degrees which the University of Toronto offers to graduate students in Medicine, are those of Doctor of Medicine (M D) and Master of Surgery (Ch M)

Before a candidate will be eligible to register for these degrees he must have fulfilled the following entrance requirements

- (1) Graduated in Medicine from a recognized University
- (2) Spent one year in a Hospital as an Interne on a rotating service or its equivalent (Two years general practice may be accepted as the equivalent of this)

*Length of Course*

The course will be normally of three years' duration of twelve months each

Three years or more in general practice may be accepted as equivalent to one of the clinical years of the course One full year's special work in one of the required laboratory subjects of the course may be accepted as equivalent to the laboratory year of the course A graduate having the B Sc (Med) will be considered as having fulfilled this requirement In very exceptional cases both of the above alternatives may be allowed

*The Course will consist of*

*First Year (Clinical)*

One year's instruction in Medicine or Surgery

This may be taken while the student is acting as a Hospital Interne in the selected clinical subject (This is in addition to the internship on a rotating service)

At the end of the first year the candidate must present a certificate to the School of Graduate Studies from the Physician or Surgeon in charge of the service in which the candidate has worked, stating the nature and details of the work done, and the degree of efficiency with which it has been carried on

*Second Year (Laboratory)*

One year's instruction in a laboratory subject

The student will devote the major part of his time for this year to work in one of the following laboratory departments and the minor part to work in any other two of these departments

- (a) Anatomy
- (b) Physiology
- (c) Biochemistry
- (d) Pathological Chemistry
- (e) Pathology
- (f) Bacteriology and Immunology
- (g) Pharmacology
- (h) Physics

At the end of the second year proceeding to the degree of M D , the candidate must pass a written and oral examination in the major and two minor subjects he has elected to take

At the end of the second year proceeding to the degree of Ch M , the candidate must pass a written and oral examination in the following subjects

- (a) Pathology, including Bacteriology
- (b) Anatomy
- (c) Principles of Physiology

A candidate failing in either the written or oral examination in his major subject must repeat the year before being considered eligible for re-examination. A candidate failing in not more than one of his minor subjects may apply for a Supplemental in that subject in which he has failed

#### *Third Year (Clinical)*

One year's instruction in Medicine or Surgery

One of the clinical years in the course for the Surgical Degree may be spent in the Department of Obstetrics and Gynaecology

This clinical year may be taken while holding a hospital appointment in the selected clinical department

At the end of the third year proceeding to the degree of M D or Ch M , the candidate must present a certificate to the School of Graduate Studies from the Physician or Surgeon in charge of the service on which he has worked, stating the nature and details of the work done and the degree of efficiency with which it has been carried out

The third year of the course must be taken at the University of Toronto in all cases

Candidates in Medicine or Surgery, besides being familiar with the general field of the subject, must be able to make

- (a) A satisfactory examination of the Eye, Ear, Nose and Throat
- (b) A satisfactory pelvic examination
- (c) A satisfactory routine laboratory examination

Candidates must present a satisfactory thesis and pass an examination in the subjects of instruction at the end of the course. Candidates proceeding to the Ch M must pass an examination in General Surgery

#### REGULATIONS FOR DEGREES OF, MASTER OF APPLIED SCIENCE, MASTER OF ARCHITECTURE, CIVIL ENGINEER, MINING ENGINEER, MECHANICAL ENGINEER, ELECTRICAL ENGINEER, CHEMICAL ENGINEER

A The regulations governing the Degrees of Master of Applied Science and Master of Architecture for the session 1924-25 shall be determined as follows

1a A candidate for the degree of Master of Applied Science shall hold the degree of Bachelor of Applied Science of this University or a degree from some other University recognized as equivalent by the Council of the School of Graduate Studies

1b A candidate for the degree of Master of Architecture shall hold the degree of Bachelor of Architecture or the degree of Bachelor of Applied Science in Architecture of this University or a degree from some other University recognized as equivalent by the Council of the School of Graduate Studies

2 He shall register with the Secretary of the School of Graduate Studies at the beginning of the academic year

3 Not later than November 1, 1924, he shall submit to the Secretary for acceptance by the Council of the School of Graduate Studies the title of his proposed thesis as approved by the department concerned

4 Not later than April 30th, 1925, he shall present evidence to the Council of the School of Graduate Studies that he has spent not less than one academic year of the department concerned as a student enrolled in one of the following departments on a course of study approved by the department Civil Engineering, Mining Engineering, Mechanical Engineering, Architecture, Chemical Engineering, Electrical Engineering, Metallurgical Engineering

5 Not later than April 30, 1925, evidence that the candidate has satisfactorily met all the requirements of the department with regard to thesis and to such examinations as the department shall require, shall be forwarded to the Council of the School of Graduate Studies through the sub-committee administering the regulations governing the degrees of Master of Applied Science and Master of Architecture

B The regulations governing the Professional Degrees of Civil Engineer (C E), Mining Engineer (M E), Mechanical Engineer (M E), Electrical Engineer (E E), Chemical Engineer (Chem E), for the Session 1924-25 shall be determined as follows

1 A candidate for one of the said degrees shall hold the diploma of the School of Practical Science or of the Faculty of Applied Science and Engineering or the degree of Bachelor of Applied Science

2 He shall have spent at least three years after receiving the diploma or the degree in the actual practice of the branch of engineering wherein he is a candidate for a degree

3 Intervals of non-employment in other branches of engineering shall not be included in the above three years It shall not be necessary that the several periods requisite to make up the said three years be consecutive

4 Satisfactory evidence shall be submitted to the University Examiners as to the nature and length of the candidate's professional experience for the purpose of clauses 2 and 3

The examiners may satisfy themselves by oral or written examinations in regard to the candidate's experience and competence

5 The candidate shall prepare an original thesis on some engineering subject in the branch in which he wishes a degree, the said thesis to be accompanied by all necessary descriptions, details, drawings, bills of quantities, specifications and estimates

The candidates may be required at the option of the examiners to undergo an examination in the subject of this thesis

6 Notice in writing shall be sent to the Secretary not later than the first day of November, informing him of the degree to which the candidate wishes to proceed and of the title of his proposed thesis for the approval of the Examiners

7 The evidence under clause 4, and the thesis, with accompanying papers, described in clause 5, shall be sent to the Secretary not later than the first day of April

8 The candidate shall be required to present himself for examination in the month of April at such time as may be arranged by the Examiners

9 The thesis, drawings, and other papers submitted under clause 7 shall become the property of the University

10 Nothing in this statute shall prevent any candidate from receiving more than one of the said degrees, provided he has the necessary qualifications for each degree. An interval of three years must elapse between the granting of any two degrees under this statute

#### REGULATIONS FOR THE DEGREE OF DOCTOR OF PEDAGOGY

The degree of Doctor of Pedagogy (D Paed) will be awarded under the following conditions

1 The candidate shall hold an approved degree in Arts or Science or in the applied sciences of Agriculture, Engineering, or Commerce

2 The candidate shall be in attendance at the Ontario College of Education during three regular College Sessions or four Summer Sessions. A High School Assistant's, First Class, or Second Class certificate valid in Ontario, or a regular Course in an approved training school for teachers will be accepted in lieu of the attendance during one of these regular Sessions or one of the Summer Sessions

3 The Course shall consist of the four subjects and a thesis as defined in Sections 4 and 5. The subjects may be taken in any order, provided that not more than two be taken in any regular Session and not more than one in any Summer Session. Candidates who, under Section 2, are exempted from attendance during one regular Session or one Summer Session will be exempted also from the instruction and examination in one of the four subjects



4 The candidate, after passing the prescribed examinations, shall also submit on or before March 1st a thesis on some educational topic selected with the approval of the Ontario College of Education. In valuing this thesis literary excellence, as well as the discussion of the subject, will be taken into account. After the examiners have reported in favour of the candidate's examinations and thesis, and before the degree of D Paed is conferred, the candidate shall furnish the Secretary of the School of Graduate Studies with twenty-five copies of the thesis.

#### 5 Subjects of Instruction and Examination

(a) The Science of Education, including a study of the philosophical, ethical, and sociological bases of education (Two papers)

(b) Educational Psychology (Two papers)

(c) The History of Education in Western Europe and North America in modern times, with special reference to Ontario, Great Britain, and the United States (Two papers)

(d) Educational Administration in Great Britain, the United States, France, and Germany, with special reference to the administration and organization of education in Ontario (Two papers)

### REGULATIONS FOR THE DEGREE OF FOREST ENGINEER

The Faculty of Forestry grants the degree of Forest Engineer (F E) to the graduates holding the degree of B Sc F, who, after three years' employment in forestry work, present an acceptable thesis, the details to be arranged and the subject to be previously approved by the Faculty.

#### FEES

##### Doctor of Philosophy —

Registration and tuition	first year	\$25 00
Registration and tuition	(second and third years)	45 00
Examination		25 00
Degree		25 00

If the course is extended over more than three years a registration fee of \$5 00 only for each additional year is required.

##### Master of Arts —

Registration and tuition	first year	\$25 00
Each subsequent year		5 00
Examination		10 00
Degree		10 00

Candidates for the Degree of Master of Arts shall pay \$25 00 for registration and tuition for one year of the course. If the course is extended over more than one year a registration fee of \$5 00 only must be paid for each additional year.

Graduate Students not proceeding to a degree—

	For the Session	For the Term
For a course in any one subject, including registration	\$10 00	\$5 00
For a course in more than one subject, each subject including registration	9 00	5 00
Maximum Fee	45 00	23 00

If any or all of the courses taken by a Graduate student are later accepted by the Council of the School of Graduate Studies as part of the student's course of instruction for the Degree of Master of Arts or Doctor of Philosophy, an additional fee shall be charged, if necessary, to bring the total fees paid for registration and tuition up to the amount paid by a candidate registered for the Degree of Master of Arts or Doctor of Philosophy.

The fee for registration shall be paid by the candidate immediately upon being notified of admission to the course.

If the candidate is required to repeat either examination an additional fee of \$10 00 will be charged.

Doctor of Medicine —

Master of Surgery —

Instructional fee for all students enrolled for this Degree who are not holding University or Hospital appointments in this University	per annum	\$150 00
Examination		10 00
Degree		10 00

Master of Applied Science —

Examination and Degree	\$25 00
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Master of Architecture —

Examination and Degree	\$25 00
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Professional Degrees —

Civil Engineer

Mining Engineer

Mechanical Engineer

Electrical Engineer

Chemical Engineer

Examination and Degree	\$20 00
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## Doctor of Pedagogy —

Registration		\$5 00
Tuition, examination, library		10 00
Summer Session		10 00
Examination	each subject	3 00
Degree		25 00

## Forest Engineer —

Examination and Degree	\$20 00
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## Graduate Students' Union

Annual Fee	\$1 00
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## FELLOWSHIPS

The University offers annually to qualified students intending to pursue advanced graduate study a number of fellowships, each amounting to \$500, the holders of which will, for the year of their tenure, be entitled to free tuition. Some are confined to special Departments, but those specified in paragraph (1) below are open to students in all Departments, who are proceeding to the degrees of M A and Ph D. Others are called Tutorial Fellowships because the holders of them are required to give a certain amount of instruction in the class-room or laboratory in elementary subjects, but the time so devoted is small and, accordingly, the holders are given opportunity to pursue their special advanced courses of study.

These Fellowships are as follows

## 1 SPECIAL OPEN FELLOWSHIPS

By the generosity of the Canadian Pacific Railway, the Imperial Oil Company, Colonel R. W. Leonard, Sir Edward Osler and Sir Edward Kemp, there are seven Fellowships available to students who undertake to pursue graduate work in any of the courses offered by the Departments of this University for the degrees of M A and Ph D under the authority of the School of Graduate Studies. The value of each Fellowship is \$500 for one year with free tuition. If the holder of a Fellowship gives satisfactory evidence of progress in his work during the year he may receive the renewal of it for a second year. Preference will be given to candidates who are graduates of the Universities of Canada outside Ontario. Applications, together with details of undergraduate courses taken and certificates therefor, should be addressed to the Dean of the School of Graduate Studies not later than the 1st of June.

## 2 SPECIAL DEPARTMENTAL FELLOWSHIPS

(a) Alexander Mackenzie Research Fellowships, two in number, of \$500 each, for research in the Departments of Political Science and History, awarded to graduates of any university, on the recommendation of the committee. Applications for these Fellowships should be addressed to the Head of the Department not later than the 1st of June.

(b) James H. Richardson Fellowship, of \$500, awarded in Anatomy by the Senate on the recommendation of the Professors of Anatomy, Biology and Surgery. Applications for this Fellowship should be addressed to the Professor of Anatomy.

(c) The George Brown Memorial Fellowship, of \$500, awarded in alternate years to the graduate in Medicine of the University of Toronto, who has distinguished himself most in the subjects of Anatomy, Physiology, Biochemistry, Pharmacology, Pathology and Pathological Chemistry, in the undergraduate course. The holder of the Fellowship is expected to devote himself to research in one of the laboratories of the University on some subject bearing on the advancement of medical science.

(d) The Ellen Mickle Fellowship, being the annual income from an

endowment of twenty-five thousand dollars (\$25,000) has been established by the late Dr W J Mickle, to be given to the student (or students) who in the examinations at the end of the fourth year of the Old Course or the fifth year of the New Course in Medicine, shall have taken honours of the first class in at least three-fourths of the subjects of that year, and shall have obtained the highest marks in the examinations. The award will be made to the above referred to student (or students) provided he proceed to the degree of Bachelor of Medicine in this University and spend one year in post graduate study approved by the Council of the Faculty of Medicine.

### 3 MEDICAL RESEARCH FELLOWSHIPS

These were established in 1913 through the generosity of a number of the leading citizens of Toronto, for the promotion of Clinical and Laboratory Research in the Department of Medicine. Each is tenable for three years, providing that the progress in research made by the holder is satisfactory. The value of the Fellowships for the first year is \$750, and in the senior years may be as much as \$1,000 and \$1,500. Applications for these Fellowships should be addressed to the Secretary of the Medical Research Fellowship Committee.

### 4 EDUCATION FELLOWSHIPS

Four fellowships of not less than \$500 each are offered annually to teachers who undertake to pursue graduate work in Education leading to the degree of D Paed or Ph D. On the recommendation of the instructors concerned these fellowships may be renewed for a second year. Applications for these fellowships should be addressed to the Dean of the Ontario College of Education not later than June 1st of each year.

### 5 TUTORIAL FELLOWSHIPS

There are eight of these Fellowships, the holders of which are required to give part of their time to elementary instruction in the class-room or laboratory, and are also to engage in advanced study and research.

These Fellowships are annually awarded in the following Departments: three in Mathematics, three in Physiology and Biochemistry, four in Pathology, and two in Botany.

These Fellowships are open to graduates of any University and the appointments to them are made, on the recommendation of the staffs in the respective Departments, by the Board of Governors.

### DEMONSTRATORSHIPS, ASSISTANT DEMONSTRATORSHIPS, AND ASSISTANTSHIPS

Certain of the Departments of Science offer annually to qualified graduates of any University positions as Demonstrators, Assistant Demonstrators, or Assistants, which involve instruction to elementary laboratory

classes, but only a certain number of hours per week in each case is required, and the instructors are accordingly free to pursue advanced study and research with the object of qualifying for the degrees of M A and Ph D

The number of these posts varies from year to year, but for the session 1923-1924 they were, according to Departments, as follows

Physics, nine Assistant Demonstratorships, Chemistry, thirteen Assistantships, Botany, six Assistantships, Pathological Chemistry, six Assistantships, Biochemistry, one Demonstrator, four Fellows, Physiology, two Demonstrators, eight Fellows

Applications for these positions should be addressed to the Head of the Department in each case The honorarium is \$500 or more

### GRADUATE STUDENTS' UNION

All students registered in the School of Graduate Studies are thereby members of the Graduate Students' Union, and all resident students must pay the annual fee of \$1 00 for the support of the activities of the Union

**ANNOUNCEMENT OF COURSES OF GRADUATE  
STUDY OFFERED BY THE DEPARTMENTS OF  
THE FACULTY OF ARTS**

In the following announcement of courses certain Minors are suggested as suitable to accompany each of the major subjects. In many cases students are advised to take the Minors indicated, but it is always to be understood that other Minors may be arranged by consultation between the student and the staffs involved.



## CLASSICS

The departments included under the Classics are four in number: Greek, Latin, Greek and Roman History, Comparative Philology and Sanskrit

## DEGREE OF MASTER OF ARTS

Before being accepted as a candidate for the degree of Master of Arts an applicant must have done the equivalent of the Third Year Honour work in both Greek and Latin, and the equivalent of the Fourth Year Honour work in either Greek or Latin

After the above requirements have been met, a candidate may be registered for M A work in the language in which the Fourth Year work has been done

Students who, under the direction of the Classical staff, are taking courses to enable them to meet the above requirements may be registered as graduate students not proceeding to a degree

## DEGREE OF DOCTOR OF PHILOSOPHY

A graduate student, proceeding to the degree of Doctor of Philosophy, may select any one of the following divisions as his Major

Greek Literature

Latin Literature

Greek and Roman History

Greek and Roman Philosophy

Comparative Philology and Sanskrit

All candidates for the degree of Doctor of Philosophy whose major subject lies within the Classics shall give evidence of proficiency in Greek and Latin Prose Composition, or (with the consent of the staff in Classics) in one or other of them, and to this end shall take such courses as the staff may prescribe

A graduate student will be required, before entering upon more advanced courses, to have taken such of the courses marked below by an asterisk as the staff in Classics may recommend, having regard to the range of work already completed and to the nature of the course of study he expects subsequently to pursue

No absolute rule is laid down as to the selection of the Minors to be chosen by a candidate whose Major is in one of the classical departments, but one of them at least should be chosen from the remaining subjects in these departments, and the other, if chosen from some different department should have a definite relation to the candidate's major subject. Where both minor subjects are chosen from the departments included under the Classics, one half of the courses constituting the two minor subjects should consist of courses not marked by an asterisk

## COURSES OF INSTRUCTION

## I GREEK.

\*1—Greek Prose Composition

\*2—Plato, Republic, Bks I-IV

- \*3—Plato, Republic, Bks V-X
  - \*4—Greek Drama (Aeschylus, Agamemnon, Sophocles, Ajax, Oedipus Rex, Euripides, Iphigenia in Tauris, Aristophanes, Birds, Clouds)
  - \*5—Aristotle, Ethics, Bks I-IV, X (8-9)
  - \*6—Aristotle, Poetics
  - \*7—History of Greek Philosophy (Introductory Course)
    - 8—Plato, Phaedrus, Phaedo, Gorgias Professor Hutton
    - 9—Plato, Laws Professor Hutton
    - 10—Aeschylus Professor Owen 1924-25
    - 11—Sophocles and Euripides Professor Macnaughton
    - 12—Aristotle, Ethics, Bks V, VI, VII Professor Brett 1924-25
    - 13—The Educational Theories of Plato Professor Robertson 1925-26
    - 14—The Political and Ethical Thought of Plato
      - Professor Robertson 1924-25
    - 15—The Influence of Greek Thought upon the New Testament
      - Professor Macnaughton
    - 16—History of Greek Philosophy from Plato to Plotinus
      - Professor Brett 1924-25
    - 17—The Relation between the Metaphysics of St Augustine and Plato
      - Professor Carr
    - 18—Graeco-Roman Literary Criticism with special study of Longinus
      - Professor Dale
    - 19—The Greek Conception of the Function of Art in the State
      - Professor Milner
    - 20—Greek Archaeology Professor Kirkwood 1925-26
- [See also Greek and Roman History, 1, 2, 4, 9, 10]

## II LATIN

- \*1—Latin Prose Composition
  - \*2—Juvenal and Martial (selections)
  - \*3—Virgil, Georgics I, IV, Aeneid
  - \*4—Horace
    - 5—The Minor Poems of Virgil Professor DeWitt 1924-25
    - 6—Catullus, Tibullus, Propertius, Ovid Professor Macnaughton
    - 7—Roman Public Life, with the study of selected speeches of Cicero
      - Professor Smith 1925-26
    - 8—Roman Literary Criticism with special reference to Cicero's rhetorical writings
      - Professor DeWitt 1924-25
    - 9—Roman Stoicism, with special study of Cicero, De Finibus, Bks III, IV
      - Professor Robertson 1925-26
    - 10—Cicero, Academica, and the Eclectic Philosophy
      - Professor Robertson 1924-25
    - 11—Roman Archaeology Professor Kirkwood 1924-25
    - 12—Latin Epigraphy Professor DeWitt 1924-25
    - 13—Roman Religion Professor DeWitt 1924-25
- [See also Greek and Roman History, 5, 6, 15, 16, and Greek 18]

## III GREEK AND ROMAN HISTORY

- \*1—Thucydides, Bks I-III, VI, VII
- \*2—Herodotus, Bks VII, VIII, IX
- \*3—Greek History, B C 454 to B C 399
- \*4—Aristotle, Politics, Bks I, II, III
- \*5—Tacitus, Annals, Bks I-VI, and the Principate
- \*6—Cicero, Letters (Watson), Sallust, Catiline, Caesar, Civil War
- \*7—Roman History (to death of Cicero)
- \*8—Roman Institutions
- 9—Herodotus Professor Sissons 1924-25
- 10—Aristotle, Politics Professor Milner
- 11—The History of the Pentecontaëty Professor Sissons 1924-25
- 12—The Letters of Cicero Professor Milner
- 13—The Geography of the Mediterranean World Professor Cochrane 1924-25
- 14—The Second Punic War with a special study of Livy's Third Decade Professor Kirkwood 1925-26
- 15—Interpretation of Greek and Roman History to 476 A D Professor Milner
- 16—Greek and Latin } Professor Cochrane 1924-25  
       Historical Literature }
- 17—The Roman Occupation of Britain Professor Smith 1924-25  
       [See also Latin 7]

## IV COMPARATIVE PHILOLOGY AND SANSKRIT

- \*1—Comparative Philology
- 2—Introduction to the study of Sanskrit Professor DeWitt 1925-26
- 3—Introduction to Oscan and Umbrian Professor DeWitt 1924-25

The following are the minor subjects offered in the Classics \*

- A—Greek Literature Greek, 2, 4, 6
- B—Latin Literature Latin, 2, 3, 4
- C—Greek History Greek and Roman History, 1, 2, 3, 4
- D—Roman History Greek and Roman History, 5, 6, 7, 8
- E—Greek Philosophy Greek, 2, 3, 5, 7
- F—Comparative Philology and Sanskrit, 1, 2, 3
- G—Greek and Roman Archaeology Greek, 20, Latin, 11, 12, 13

## SEMITIC LANGUAGES

## DEGREE OF MASTER OF ARTS

Candidates for this degree are accepted under the general regulations.

## DEGREE OF DOCTOR OF PHILOSOPHY

A candidate proceeding to the degree of Doctor of Philosophy in the department of Semitic Languages must give proof of his fitness for ad-

\*For the courses constituting these minor subjects, equivalent courses may be substituted with the approval of the staff in Classics

vanced study in this department either as being an honour graduate of the University of Toronto or as possessing an equivalent standing in some field of Semitic Philology in a recognized University or College

A course of study must be elected by the candidate in consultation with the members of the department under whom it is proposed to pursue the major and minor subjects and must be submitted to and approved by the department

The department will not recommend a student for the degree merely on the ground of faithful study for a definite period but only because of high attainment in such study manifested in the examinations and by the thesis

The following divisions are offered as Majors

- Hebrew Language and Literature
- Aramaic Language and Literature
- Syriac Language and Literature
- Assyrian and Babylonian Language and Literature
- Arabic Language and Literature

The following Minors are recommended for candidates taking a Major in this department

- Language cognate to the major subject
- Greek (Classical)
- Philosophy
- Hellenistic Greek (Biblical and Patristic)

These Minors shall be chosen in accordance with the general regulations. These recommendations do not prohibit other Minors being arranged between the candidate and the department. When a minor subject is elected outside of the department, the candidate must obtain the consent of the department concerned to the choice of such Minor and he shall be subject to the regulations of that department in respect thereto. No student of this department shall be exempt from the written examination on more than one Minor.

## COURSES OF INSTRUCTION

### *Aramaic*

- 1 Introductory Palestinian Aramaic Translations from Daniel, Ezra and Targums
- 2 The development of the Aramaic dialects Professor S. H. Hooke

### *Arabic*

- 1 Elementary course Translations from simple texts
- 3 Reading of representative selections from Arabic Literature  
Professor J. F. McLaughlin

*Assyrian, Babylonian and Sumerian*

- |   |  |                              |                     |
|---|--|------------------------------|---------------------|
| 1 | Elementary Course  | Translations of Inscriptions | Professor W A Irwin |
| 2 | Assyrian and Babylonian Historical Inscriptions          |                              | Professor T J Meek  |
| 3 | Assyrian and Babylonian Law Codes and Business Contracts |                              | Professor T J Meek  |
| 4 | Assyrian and Babylonian Religious Texts and Epics        |                              | Professor T J Meek  |
| 5 | Bilingual Texts and Sumerian Inscriptions                |                              | Professor T J Meek  |

*Hebrew*

- |   |  |                          |
|---|--|--------------------------|
| 1 | Prophetic Literature of the Old Testament              |                          |
| 2 | Poetical Literature of the Old Testament               |                          |
| 3 | Hebrew Wisdom Literature                               | Professor J F McLaughlin |
| 4 | Hebrew Prophecy and Apocalypse                         | Professor J F McLaughlin |
| 5 | Hexateuchal Criticism                                  | Professor W R Taylor     |
| 6 | Critical study of selections from Prophetic Literature | Professor W R Taylor     |
| 7 | The Social Development of the Hebrews                  | Professor W R Taylor.    |

*Syriac*

- |   |                                   |                                |
|---|-----------------------------------|--------------------------------|
| 1 | Introductory Course               | Translations from simple texts |
| 2 | Syriac Patrology                  | Professor S H Hooke            |
| 3 | Selections from Syriac Literature | Professor W R Taylor           |

*Semitic History and Archaeology*

- |   |                             |                     |
|---|-----------------------------|---------------------|
| 1 | Semitic Epigraphy           | Professor S H Hooke |
| 2 | Semitic Archaeology and Art |                     |
| 3 | History of the Hebrews      |                     |
| 4 | History of the Near East    |                     |
| 5 | History of Mohammedanism    |                     |

*Hellenistic Greek*

- |   |  |                      |
|---|--|----------------------|
| 1 | The Literature of the Septuagint   | Professor W R Taylor |
| 2 | Selections from Hellenistic Literature relative to the study of Religion | Professor W R Taylor |

## ENGLISH

## DEGREE OF MASTER OF ARTS

Students admitted as candidates for this degree must have completed the courses required of honour students in the graduating department of English and History, or give evidence of possessing similar qualifications. They are required to be in actual attendance, to cover satisfactorily the work of three of the courses outlined below, and to submit a dissertation on some subject connected with their work.

## DEGREE OF DOCTOR OF PHILOSOPHY

Students admitted as candidates for this degree in English are required to be in actual attendance, to cover satisfactorily the work of at least ten of the courses outlined below (or their equivalents), and to submit a thesis. This thesis must, in the opinion of the department, be worthy of publication. They shall further be required to take one Minor from each of the groups (a) and (b) enumerated below.

The selection of Minors, of courses, and of subjects for the thesis must in every case be approved by the department.

## COURSES OF INSTRUCTION

The annexed schedule is intended to indicate the general character and the extent of the work required, but equivalent courses may be substituted for those contained in the list. Courses 1 to 5 are identical with the undergraduate English courses 3c, 4c, 3d, 4e, and 4d, respectively, and are open only to students who have not taken these courses. Those courses which are available for the session 1924-25 are marked by an asterisk.

- |   |   |   |
|---|---|---|
| *1—Old English Grammar and reading of Selections              | Fifty hours                               | Professors Clawson and Horning          |
| *2—Middle English and Historical Grammar                      | Fifty hours                               | Professors Clawson and Horning          |
| *3—Milton and Seventeenth Century Literature                  | Fifty hours                               | Professors Edgar and Wallace            |
| *4—The Development of the Drama                               | Fifty hours                               | Professors Edgar, Knox and Simpson      |
| *5—Nineteenth Century Thought                                 | Newman, Carlyle, Mill, Arnold, and Ruskin | Fifty hours                             |
| 6—Beowulf   | Fifty hours                               | Professor Horning                       |
| *7—Chaucer and his School                                     | Fifty hours                               | Professor Clawson                       |
| 8—The English and Scottish Ballads                            |   | Professor Clawson                       |
| 9—The Arthurian Romances                                      |   | Professor Horning                       |
| *10—Shakespeare   |   | Professor Knox                          |
| 11—The Drama in the Seventeenth Century                       |   | Professor Knox                          |
| *12—Early Seventeenth Century Prose                           |   | Professor Davis                         |
| *13—Wordsworth  |   | Professor Wallace                       |
| 14 and 15—The study of two authors approved by the Department |   | other than those mentioned in this list |

16 and 17—The study of two selected periods of literature other than those mentioned in this list

\*18—Recent English Fiction and Poetry George Meredith, Thomas Hardy, Henry James, Joseph Conrad, H. G. Wells, and the chief writers of poetry since 1901  
Professor Edgar

The following Minors are recommended for students taking their Major in this department

Group (a)—Any one of the following courses

- \*1—Gothic as an Introduction to the Study of Philology Fifty hours  
Professor Horning
- 2—The History of Literary Criticism Professors Dale and Davis
- 3—English Political Thought Fifty hours Professor Kennedy.
- 4—Contemporary Drama Dr Pratt

Group (b)—Any of the Minors offered in Classics, French, German, Italian, Spanish, History, and Philosophy

Minors in English for candidates who are not taking their Major in English will be arranged on application

## GERMAN

The selection of courses and of theses for the degrees of Master of Arts and Doctor of Philosophy must in every case be approved by the department.

### DEGREE OF MASTER OF ARTS

Students admitted as candidates for the degree of Master of Arts in German must cover satisfactorily the work of at least three of the major courses outlined below and must submit a thesis on some subject connected with the work

### DEGREE OF DOCTOR OF PHILOSOPHY

Students admitted as candidates for the degree of Doctor of Philosophy in German must cover satisfactorily the work of at least ten major courses and must submit a thesis which, in the opinion of the department, is worthy of publication. They shall further be required to select two Minors in two approved departments other than German

Candidates taking their Major in departments other than German may select as a Minor in German any three courses of fifty hours each

## COURSES OF INSTRUCTION

*Major courses (fifty hours each)*

- |   |                   |
|---|-------------------|
| 1—Gothic, and Introduction to the Study of Germanic Languages | Professor Horning |
| 2—The Middle High German Popular Epic The Nibelungenlied      | Professor Needler |
| 3—History of the German Drama from the Beginning to Lessing   | Professor Needler |
| 4—Lessing   | Professor Young   |
| 5—Goethe's Autobiographical Prose Writings                    | Professor Young   |
| 6—Goethe's Faust  | Professor Lang    |
| 7—Schiller's Philosophical Writings                           | Professor Fairley |
| 8—The German Drama in the Nineteenth Century                  | Professor Lang    |
| 9—Schopenhauer in Relation to German literature               | Professor Fairley |

*Minor courses (fifty hours each)*

- |  |                                      |
|--|--------------------------------------|
| 10—A general acquaintance with the German Literature of the Nineteenth Century, with the reading of approved texts | Professor Lang, Professor Young      |
| 11—Middle High German Grammar and Literature   | Professor Horning, Professor Needler |
| 12—The Austrian Drama in the Nineteenth Century  | Professor Lang, Professor Young      |
| 13—Goethe and his English contemporaries   | Professor Needler                    |
| 14—Goethe's political opinions   | Professor Needler                    |
| 15—Goethe's <i>Singspiele</i> and his relation to the art of music in general                                      | Professor Needler                    |
| 16—Swedish   | Professor Hedman                     |
| 17—Dano-Norwegian  | Professor Hedman                     |
| 18—The Dramas of Ibsen   | Professor Hedman                     |
| 19—The Modern German Lyric   | Professor Hedman                     |

*Note*—Other courses, major or minor, will be arranged to meet the individual needs of candidates

## ROMANCE LANGUAGES

## DEGREE OF MASTER OF ARTS

The general conditions of candidacy for the Master's degree will be found on pages 9 and 10. Proposed courses of study and the subject of the thesis (if offered) must receive the approval of the staff in French, or in Italian, or in Spanish, in one of which the candidate must do the major part of his work.

A knowledge of standard classic authors is presupposed



## DEGREE OF DOCTOR OF PHILOSOPHY

A candidate for the degree of Doctor of Philosophy shall select his major and minor subjects under the direction of the staff in Romance Languages in accordance with the general regulations. The major subject shall be chosen from one of the following groups

- |                                |                                 |
|--------------------------------|---------------------------------|
| Romance Philology              | Italian Language and Literature |
| French Language and Literature | Spanish Language and Literature |

Both Minors may be selected within the department of Romance Languages. One Minor *must* be selected within the department. If the second minor is selected outside of this department it must be chosen from a department cognate with that of the major subject. In any case the candidate must do some work in each of the four groups named above.

The department will not recommend the conferring of this degree merely because of the completion of a certain programme of studies. Evidence must be exhibited of special aptitude and of high attainment in the field chosen by the candidate. The thesis must be a distinct contribution to the literature of the subject discussed.

A student whose major subject is not in Romance Languages, but who requires a Minor in one of its groups, will be expected to make his choice of such Minor only after consultation with the staff in Romance Languages.

All graduate students and instructors of this department are members of the *Romance Journal Club*, original papers are read, recent publications are reviewed, and information of common interest is exchanged.

## COURSES OF INSTRUCTION

- 1—Methods of research, bibliography    One hour a week  
Professor Buchanan
- 2—Introduction to Romance philology    Two hours a week  
Professor Ford
- 3—(a) Old French literature, *or*  
(b) Literary doctrines in France since 1549    Professor de Beaumont.
- 4—(a) Old Provençal, *or*  
(b) Dialectal studies based on the *Atlas linguistique de la France*  
Professor Ford
- 5—(a) The Arthurian romances, *or*  
(b) The Picard dialect    Professor Allen
- 6—(a) The sixteenth century in France, *or*  
(b) Traditional elements in contemporary French literature  
Professor Will
- 7—(a) The history of prose fiction in France, *or*  
(b) The novel of manners in the Romance countries and in England  
Professor Kittredge

- 8—(a) French Romanticism, its origins and development, *or*  
 (b) Molière Professor Moraud
- 9—The theory of love in the *dolce stil nuovo* Professor Shaw
- 10—(a) Italian phonology and morphology, *or*  
 (b) A subject from Italian literature of the Renaissance  
 Professor Goggio.
- 11—The Spanish lyric Professor Buchanan.

## HISTORY

### DEGREE OF MASTER OF ARTS

Candidates are accepted under the general regulations, but before being admitted must give evidence of adequate training for advanced study in history. Candidates may proceed to the degree either by the pursuit of an advanced course of study or by the preparation of a thesis, in accordance with Rule 20 on pp. 8, 9 above.

Candidates for the degree by the pursuit of an advanced course of study are required to take the following subjects:

(1) Historical method, bibliography, and the development of English historical writing.

(2) Two of the following periods of history, to be studied in detail in the leading secondary authorities and selected primary sources. The choice of periods should be made after consultation with the teaching staff in History:

(a) The History of Canada from the Discovery to 1763, *or* from 1763 to Confederation, *or* from the Act of Union to the present day.

(b) The American Revolution and the framing of the Constitution.

(c) European History. The Renaissance and Reformation, *or* The French Revolution and Napoleon, *or* The Nineteenth Century.

(d) A period of Mediaeval History.

(e) British History. The Tudors, *or* The Seventeenth Century, *or* from 1688-1815, *or* The Nineteenth Century.

(f) English Constitutional History to 1603, *or* since 1603.

(3) One of the following subjects:

(a) Modern Political Theory.

(b) Economic Theory.

(c) The Economic History of England.

(d) The Organization of Modern Democratic Government.

(e) The Political Institutions of the British Empire.

Candidates for the degree by the preparation of a thesis are required to take course (1) above, and one of the options in (3). They must present a thesis on an approved subject based on the sources and prepared under the direction of the staff in history. They will in addition be examined on their knowledge of the general historical background of the subject chosen. Candidates who offer a subject in Canadian History should be prepared to avail themselves of the facilities for research in the Dominion Archives at Ottawa.

#### DEGREE OF DOCTOR OF PHILOSOPHY

Candidates are accepted under the general regulations. The choice of major and minor subjects should be made from the list given below, though other subjects may be arranged by consultation with the staff in History. All candidates are required to take a course in Historical Method, Bibliography, and the development of English historical writing.

Candidates must present a thesis of such a character as to constitute an addition to the literature of the subject selected. Candidates who offer a subject in Canadian History should be prepared to avail themselves of the facilities for research in the Dominion Archives at Ottawa.

- (1) The History of Canada
- (2) The American Revolution
- (3) The French Revolution and Napoleon
- (4) Nineteenth Century Europe
- (5) A period of Mediaeval History
- (6) The Renaissance
- (7) English Constitutional History
- (8) The History of the modern British Empire

#### POLITICAL SCIENCE

##### DEGREE OF MASTER OF ARTS

Candidates for the degree of Master of Arts in the department of Political Science must present evidence of fitness for advanced study in the department, either by having taken special undergraduate courses in Political Science, Commerce and Finance, History, or Philosophy, or by giving such other proof of sufficient knowledge as will justify their acceptance as advanced students. Each candidate is required to submit, for the approval of the staff in Political Science, on or before the date prescribed in the general regulations in this connection, the title of the thesis proposed. The thesis must be submitted in complete form on or before the 1st May. An oral examination upon the subject of the thesis will be conducted by the staff of the department before the candidate is recommended to the Council of the School of Graduate Studies for the degree.

## DEGREE OF DOCTOR OF PHILOSOPHY

Candidates may proceed to the Degree of Doctor of Philosophy in the manner prescribed in the general regulations. They may select their major course from the following list

Economic History

Economic Theory

Public Finance

Philosophy of Politics

Constitutional History and Law

Special subjects cognate to any or all of the above general courses are to be regarded as included under them

Special postgraduate courses, varying in topics according to the needs of the students, are customarily given by the staff in the department. Importance is attached to individual assistance in the investigation of specific problems. The thesis offered by the candidate must present either the results of an original investigation into some problem and thus form a contribution to knowledge or a critical examination of the results of investigation by others and thus form a contribution to scholarship. One Minor subject must be selected from the lists given above and the other from the subjects offered by the departments of History and Philosophy. In exceptional circumstances candidates may submit for the approval of the department some other subject of study as a second Minor, even though not obviously related to the Major.

An oral examination will be conducted by the staff of the department in the major and in the first minor subject before the candidate is recommended to the Council of the School of Graduate Studies for the degree.

## PHILOSOPHY

## DEGREE OF MASTER OF ARTS

Candidates for this degree will proceed under the general regulations, to be found on pages 7-9. Except in special cases, candidates will be expected to qualify by pursuing an approved course of study, and passing a satisfactory examination therein.

Candidates for this degree fall into two classes, viz., those who have, and those who have not taken the Honour work in Philosophy for their B A degree.

Those who have taken the B A degree with honours in Philosophy must select their subjects of study from Courses 8-20, given below. Four courses of study will be required for the degree. Not more than two courses may be selected from any one division of the department. In cases where permission is granted by this department, one subject may be taken from another department or two subjects, provided that one is from the department of Psychology. Subject to the approval of this department a thesis may be substituted for one of the courses.

Those students who have not graduated with honours in Philosophy, will be required, before being admitted as candidates for the degree, to take such preliminary courses, or to furnish such other proof of sufficient knowledge as will justify their admission to graduate courses. They will select their subjects of study in consultation with the staff in Philosophy. The work may be expected to require two years in most cases.

Candidates who furnish evidence satisfactory to the staff of the department of their qualifications for original investigation may with the consent of the department qualify by writing an approved thesis, and taking special work in consultation with the staff in Philosophy (20, I (b)).

The writer of a thesis will be required to report regularly to the head of the department, and also to the head of the division in which his thesis falls.

#### DEGREE OF DOCTOR OF PHILOSOPHY

Candidates for this degree must present a thesis embodying the results of independent investigation, of such a character as to make a distinct contribution to the literature of the subject and to show capacity for original research on the part of the writer. The writer of a thesis must report regularly to the head of the department, and also to the head of the division in which his thesis falls.

Students are recommended to complete the work for the degree of Master of Arts as part of the work for this degree. At least one additional subject will be required for the minor in Philosophy of candidates who have completed the work for the Master's degree.

For the second Minor students must fulfil the requirements of the department in which such Minor is taken. Both Minors must be selected after consultation with the staff in Philosophy.

*Divisions of the department* History of Philosophy, Logic and Epistemology, Ethics.

#### COURSES OF INSTRUCTION

The following courses are offered to graduate students. In each of these courses fifty hours will be required, including lectures and seminar work. Standing in these courses will be determined by examinations, or other tests, as the staff may determine.

##### GENERAL

- |  |                         |                            |
|--|-------------------------|----------------------------|
| 1—History of Philosophy                          | Kant and modern systems | Professor Hume             |
| 2—History of Modern (chiefly British) Philosophy |                         | Professor Hume             |
| 3—History of Ancient Philosophy                  |                         | Professor Brett            |
| 4—Logic, Deductive and Inductive                 | Theory of the Judgment  | Professor Brett            |
| 5—Ethics, Kant and Green                         |                         | Professors Tracy and Lane  |
| 6—Modern Ethics                                  |                         | Professors Tracy and Brown |

# HISTORY OF PHILOSOPHY

- 8—Proofs of God's Existence in Modern Philosophy Professor Hume  
 9—Modern Philosophy, with special reference to the Hegelian Movement Professor Hume  
 10—(In alternate years with 9) Modern Philosophy, with emphasis on the Anti-Rationalist, Empiricist, and Pragmatist Writers  
 11—Modern Philosophic Problems (Individuality, Value, the Absolute Nature, Evil) Professor Hume  
 12—Ancient Philosophy from Thales to Plato Professor Brett  
 13—Ancient Philosophy from Plato to Augustine Professor Brett  
 14—The relation between the Metaphysics of St Augustine and Plato Professor Carr

# LOGIC AND EPISTEMOLOGY.

- 15—Principles and Methods of Modern Thought—Special Subject Realism Professor Brett  
 16—Recent discussions in the Theory of Knowledge and Being Professor Brown

# ETHICS

- 17—Idealism in Ethical Theory Professor Tracy  
 18—The Philosophy of Bergson, with emphasis on its Ethical Aspects Professor Lane  
 19—The Evolution of Morals Professor Robinson  
 20—Social and Political Ethics Professor Robinson  
 The following Minors are offered in this department for candidates whose Majors lie in other departments  
     Philosophy A—Courses 1 and 2  
     Philosophy B—Courses 3 and 12 or 13  
     Philosophy C—Courses 4 and either 13 or 14.  
     Philosophy E—Courses 6, and either 5 or 7

# PSYCHOLOGY

## DEGREE OF MASTER OF ARTS

Candidates for this degree are accepted under the general regulations  
 Applicants who have not satisfied the staff as to their fitness for advanced work in this department must first take such preliminary work as the staff may recommend In such cases the time required for the degree will normally be two years  
 Candidates may qualify by selecting a course of study comprising not less than three graduate courses of instruction, two of these must be

selected from courses named below, and the remainder may be selected from other courses offered in the University. The selection of courses must be approved by the staff of this department.

Candidates who satisfy the department as having special qualifications for original work may be allowed to qualify for this degree by writing an approved thesis (regulation 20, 1 (b)) and by consulting regularly with those members of the staff who supervise the work undertaken.

#### COURSES OF INSTRUCTION

- |   |                   |
|---|-------------------|
| 1—Psychology of intelligence, character and temperament | Professor Bridges |
| 2—Abnormal Psychology                                   | Professor Bridges |
| 3—Problems in Clinical Psychology                       | Professor Bridges |
| 4—Introduction to critical analysis                     | Professor Bott    |
| 5—Problems in Experimental Psychology                   | Professor Bott    |
| 6—Historical development of Psychology                  | Professor Brett   |

#### DEGREE OF DOCTOR OF PHILOSOPHY

Candidates for this degree must present a thesis containing the results of an original investigation and showing capacity for independent research.

The major subject and one minor may be selected from Psychology. The second minor may be selected from the minors offered by any other department in the University. The selection of the major and both minors must be made with the approval of the staff of this department. Minors in Psychology for candidates who are not taking their major in Psychology will be arranged on application.

#### EDUCATIONAL THEORY

##### DEGREE OF MASTER OF ARTS

Candidates for this degree are accepted under the general regulations.

Candidates may qualify for the degree by pursuing three approved courses of study. Of these three one must be selected from the M.A. courses specified below, one from the courses offered by another department of the University, and the third from the courses offered in this or any other department of the University. The selection of courses must be approved by the staff of this department.

Every candidate for the degree is required to present a thesis embodying the results of some special study or original investigation.

The time required to complete the requirements for the degree will normally be two years.

## DEGREE OF DOCTOR OF PHILOSOPHY

Courses leading to the degree of Doctor of Philosophy are offered to students qualified under the general regulations. Candidates may elect to take their major subjects in any of the sections A to D below. Of the minors one may be selected in the subjects offered below, one must, and both may, be chosen from minors offered in other departments of the University. The minors are also open to candidates whose major subject lies in another department.

The thesis submitted must be a distinct contribution to knowledge and show capacity for original research.

## COURSES OF INSTRUCTION

A *Educational Administration*

- \*1 Education Administration in Ontario Dean Pakenham

B *History of Education*

- 2 History of Education in Great Britain during the nineteenth century Professor Macpherson

- 3 History of Education in Ontario during the nineteenth century Professor Macpherson

- \*4 The Foundations of Modern Public Education Professor Macpherson

C *Educational Psychology*

- \*5 The Psychology of Mathematics Professor Sandiford

- \*6 Studies of Men and Women of Genius, Professor Sandiford

- \*7 The Theory of Educational Measurements Professor Sandiford

- 8 Intelligence Its Nature and Measurement Professor Sandiford

- 9 Achievement Tests Their Construction and Use Professor Sandiford

- 10 The Psychology of Individual Differences Professor Sandiford

D *The Science and Philosophy of Education*

- 11 Educational Sociology Professor Coombs

- 12 Philosophy of Education Professor Coombs

- 13 Science of Education Professor Coombs

- \*14 Scientific Study of Educational Method Professor Coombs

- \*15 Social Ethics Professor Coombs

*Note*—Courses indicated \* are M. A. courses and minors

## MATHEMATICS

## DEGREE OF MASTER OF ARTS

Candidates for this degree are accepted under the general regulations.

## DEGREE OF DOCTOR OF PHILOSOPHY

A candidate proceeding to the degree of Doctor of Philosophy in this department may select his major subject from any of the branches of Mathematics after consultation with the staff.



The thesis submitted for the degree must give evidence of original investigation and must constitute a distinct addition to the knowledge of the subject

## COURSES OF INSTRUCTION

1—Differential Calculus	Fifty hours	Professor Fields
2—Integral Calculus	Fifty hours	Professor Pounder
3—Differential Equations	Fifty hours	Professor Fields
4—Theory of Functions	Fifty hours	Professor DeLury
5—Theory of Functions of a Real Variable	Fifty hours	Professor DeLury
6—Advanced Theory of Functions of a Complex Variable	One hundred hours	Professor DeLury
7—Theory of Algebraic Functions and Abelian Integrals (Based on Riemann, Noether, etc.)	Fifty hours	Professor Fields
8—Theory of Algebraic Functions and Abelian Integrals (Methods of the lecturer)	Fifty hours	Professor Fields
9—The Algebraic Theory of Algebraic Functions of one Variable	Twenty hours	Professor Beatty
10—Theory of Elliptic Functions	Fifty hours	Professor Fields
11—Calculus of Variations	Fifty hours	Professor Fields
12—Determinants and Theory of Matrices	Fifty hours	Professor Fields
13—Theory of Rational Numbers	Fifty hours	Professor Fields
14—Theory of Algebraic Numbers including the theory of the ideals	Fifty hours	Professor Fields
15—Theory of Substitutions With applications to Algebraic Equations	Twenty-five hours	Professor DeLury
16—Theory of Continuous Groups	Fifty hours	Professor Beatty
17—Theory of Sets and Transfinite numbers	One hundred hours	Professor Beatty
18—Infinite Series	Fifty hours	Professor Beatty
19—Differential Geometry	Fifty hours	Professor Synge
20—Elliptic Functions	Fifty hours	Professor Pounder
21—Modern Analysis	Fifty hours	Professor Beatty
22—Differential Equations (Existence-Theorems, etc.)	Fifty hours	Professor Pounder
23—Rational Mechanics	Fifty hours	Professor Synge
24—Elliptic Functions	Fifty hours	Mr Stevenson
25—Foundation of Geometry	Fifty hours	Professor DeLury
26—Actuarial Science Frequency Curves and Correlation, Measurement of Groups and Series	Fifty hours	Professor Mackenzie

Candidates taking a Major in Mathematics may select as one Minor any of the above courses except Nos 1 and 2. The second Minor may be selected from any of the Minors offered by departments of the University other than Mathematics.

Courses Nos 1 and 2 constitute a Minor in Mathematics (Mathematics A) for departments other than Mathematics, Physics, and Astronomy. The department is prepared to offer other Minors which must be arranged by consultation with the staff in Mathematics and the staff of the department in which the major subject lies.

Courses Nos 1 to 4 are offered each year in the Undergraduate Courses in Honours.

Courses Nos 11, 15, 22, 24, 25 were given session 1923-1924.

The selection of courses to be given academic year 1924-1925 will be made at the opening of the session.

## PHYSICS

### DEGREE OF MASTER OF ARTS

Candidates for this degree are accepted under the general regulations.

### DEGREE OF DOCTOR OF PHILOSOPHY

Candidates for admission to the Degree of Doctor of Philosophy must have a competent knowledge of Mathematics and Chemistry.

Candidates may proceed to the Degree of Doctor of Philosophy in this Department in either of the following major divisions —

Experimental Physics  
Mathematical Physics

### COURSES OF INSTRUCTION

- 1—The Electromagnetic Theory of Light and the Electron Theory of Matter. Fifty lectures. Professor McLennan.
- 2—Atomic Structure and the Origin and Characteristics of Spectra. Fifty lectures. Professor McLennan.
- 3—Theories of Radiation, including Photoelectricity and other illustrations of the Quantum Theory. Fifty lectures. Professor McLennan.
- 4—The Principle of Relativity with applications. Fifty lectures. Professor McLennan.
- 5—Mathematical Theory of Electricity and Magnetism. Fifty lectures. Professor Burton.
- 6—Elasticity and Elastic Solid Theory of Light, Polarisation. Fifty lectures. Professor Burton.
- 7—Properties of Matter. Fifty lectures. Professor Satterly.
- 8—Advanced Heat and Thermodynamics. Fifty lectures. Professor Satterly.
- 9—Theory of Optics. Fifty lectures. Professor Gilchrist.
- 10—Modern Theories of Magnetism. Twenty-five hours. Professor McLennan.

- 11—The Physical Properties of Colloidal Solutions Twenty-five lectures Professor Burton
- 12—Vector Analysis Twenty-five lectures Professor Burton
- 13—Generalized Coordinates and their application to Physical Problems Twenty-five lectures Professor Burton
- 14—Radioactivity Twenty-five lectures Professor Satterly
- 15—Vapour Pressure, Osmotic Pressure and Related Phenomena Twenty-five lectures Professor Satterly
- 16—Theory of Measurements Twenty-five lectures Professor Satterly
- 17—Acoustics, Fourier's Series and its applications to Physics Twenty-five lectures Professor Gilchrist
- 18—Wave Motion in Elastic Media Twenty-five lectures Professor Gilchrist
- 19—Geometrical Optics Thirty-five lectures Professor McTaggart
- 20—Hydromechanics Twenty-five lectures Professor McTaggart
- 21—Modern Optical Instruments, with an introduction to practical computing Twenty-five hours Professor McTaggart.

*Note*—Laboratory work in the majority of the above courses will be offered, but such work will not count for more than twenty per cent of the whole course

22—Physics Seminar This organization consisting of all instructors, graduate students, and advanced students in the department meets fortnightly on Thursdays from 4 15 to 6 o'clock for the discussion of recent research

Candidates for the Degree of Doctor of Philosophy taking their major subject in either Experimental or Mathematical Physics may select but one Minor from the department of Physics This Minor may be either one of Courses 1, 2, 3, 4, 5, 6, 7, 8, 9, or two of Courses 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21 The second minor may be selected from Mathematics, Astronomy, Chemistry A, B, C, D, E, or Mineralogy A, B, C, Geophysics, Physical Botany

The following Minors are available in the Department

Physics A—One of Courses 1, 2, 3, 4, 5, 6, 7, 8, 9

Physics B—Two of Courses 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21

## ASTRONOMY

### DEGREE OF MASTER OF ARTS

Candidates for this degree are accepted under the general regulations

### DEGREE OF DOCTOR OF PHILOSOPHY

This department is not prepared at present to accept candidates for the degree of Doctor of Philosophy

The following Minors are available for candidates taking their Major in other departments

Astronomy A—The Application of Physical Methods to Astronomical Problems Fifty lectures Professor Chant

Astronomy B—Spherical Astronomy, including the use of the Nautical Almanac and exercises in computing Forty lectures Professor Chant

## BIOLOGY

### DEGREE OF MASTER OF ARTS

Graduate work leading to the degree of Master of Arts is offered in the various subjects enumerated below under "Courses of Instruction" Except in special cases, candidates will be expected to qualify in accordance with Section 20, 1 (b) of the regulations

### DEGREE OF DOCTOR OF PHILOSOPHY

Graduate work leading to the degree of Doctor of Philosophy is offered in the divisions indicated, subject to the following conditions

1—Students electing major work must possess adequate qualifications for beginning work of a graduate character in the major subject, must be able to search the literature in the modern foreign languages, and must possess a competent though elementary knowledge of Physics and Chemistry For the final examination a knowledge of the general field of Biology will be considered necessary The thesis must include an original contribution to the knowledge of the subject

2—Students electing major work must have their entire course of study approved by the instructor in charge of the major subject

3—Students electing major work may not select more than one Minor out of the subjects separately listed as Minors for this Department

4—Students electing minor work must have their selection approved by the instructor in charge of the subject

5—The standing to be attained in a minor subject shall be understood to be in general equivalent to Honour standing in the four-hour course of a corresponding subject of the Fourth Year undergraduate course, except in special cases in which (a) exemption or part exemption from one Minor may be granted to students who already have competent knowledge of the subject, or (b) other requirements may be made depending on the previous training of the student

Major work is offered in the following subjects

Vertebrate Zoology.	Histology
Invertebrate Zoology	Embryology
Limnobiology	Animal Genetics
Marine Biology	Comparative Neurology
Entomology	

## COURSES OF INSTRUCTION

1—†General Biology A course of lectures and conferences on the general problems of Biology The Staff in Biology

2—\*Vertebrate Zoology A laboratory course of 100 hours on the system, morphology and distribution of the Vertebrates

Professor Bensley.

3—\*Invertebrate Zoology A laboratory course of 100 hours on the system, morphology and distribution of the Invertebrates

Professor Walker

4—\*Limnobiology A course on the system, morphology and oecology of fresh-water organisms, with special reference to fishery problems

Professors Walker and Dymond

5—†Marine Biology Special research on the oecology of marine organisms

Professor Huntsman

6—†Entomology A course on the morphology, classification and oecology of the Insects, with special research, in conjunction with Course 3

Professor Walker

7—†Animal Histology A laboratory course of 100 hours on animal histology and cytology including histological technique

Professor Piersol

8—\*Microscopic Anatomy of Vertebrates A laboratory course of 100 hours including histological technique

Professor Piersol

9—\*Vertebrate Embryology A laboratory course of 100 hours on the general embryology of Vertebrates

Professor Piersol

10—\*Animal Genetics A course on the principles and problems of Heredity, Variation and Breeding of Animals

Professor MacArthur

11—\*Comparative Neurology A course on the composition of the nervous system in the mammalia and lower vertebrates

Dr Craigie

12—\*Experimental Embryology A course on the history, methods and results of experimental embryology

Professor Coventry

*Note*—Courses indicated\* are offered as Minors, or in conjunction with advanced work, literature, problems and research in a special division of the field as Majors

Courses indicated † are offered as Minors only

Courses indicated ‡ are available as Majors only, and must be taken in conjunction with the subjects specified

Except for the conditions mentioned above (Sections 1-4), no restrictions are imposed with reference to the selection of major and minor subjects. Students are advised, in making a preliminary choice of subjects, to keep in view the possible requirements of their future fields of work

## BOTANY

## DEGREE OF MASTER OF ARTS

Graduate work leading to the degree of Master of Arts is offered in the various subjects enumerated below under "Courses of Instruction" Except in special cases, candidates will be expected to qualify in accordance with Section 20, 1 (b) of the regulations

## DEGREE OF DOCTOR OF PHILOSOPHY

Graduate work leading to the degree of Doctor of Philosophy is offered subject to the following conditions

1—Students electing major work must possess adequate qualifications for beginning work of a graduate character in the major subject, and must possess a competent though elementary knowledge of Physics and Chemistry For the final examination a knowledge of the general field of Biology will be considered necessary The thesis must include an original contribution to the knowledge of the subject

2—Students electing major work must have their entire course of study approved by the instructor in charge of the major subject

3—Students electing major work may not select more than one Minor from the list enumerated below

4—Students electing minor work must have their selection approved by the instructor in charge of the subject

5—The standing to be attained in a minor subject shall be understood to be in general equivalent to Honour standing in the four-hour course of a corresponding subject of the Fourth Year undergraduate course, except in special cases in which (a) exemption or part exemption from one Minor may be granted to students who already have competent knowledge of the subject, or (b) other requirements may be made depending on the previous training of the student

Major work is offered in the following subjects

Morphology of Cryptogams  
Morphology of Phanerogams  
Plant Anatomy  
Plant Oecology  
Plant Physiology  
Plant Pathology

## COURSES OF INSTRUCTION

1—\*Cryptogamic Botany I A lecture and laboratory course of 100 hours on the system and morphology of the Liverworts, Mosses, Ferns and fern allies  
Professor Faull

2—\*Cryptogamic Botany II A lecture and laboratory course of 100 hours on the system and morphology of the Algae, Fungi, and Slime-moulds  
Professor Faull

3—\*Mycology A special course on the system, morphology, and biology of the Fungi Professor Faull

4—\*Morphology of Phanerogams A laboratory course of 100 hours on the morphology of Angiosperms, Gymnosperms and related fossil forms Professor Thomson

5—†Anatomy of Gymnosperms A special course on the comparative anatomy of the Gymnosperms, in conjunction with Course 4 Professor Thomson

6—\*Plant Physiology A lecture and laboratory course of 100 hours on the physiology of plants Dr G H Duff

7—\*Oecology and Plant Geography A course of 100 hours on plant associations, the adaptations of plants to environmental factors, and geographical distribution

8—\*Palaeobotany A special course on fossil plants Research in conjunction with course 5 Professor Thomson

9—\*An experimental and seminar course on the principles of genetics Professor Thomson

10—\*Plant Pathology Professor Faull

11—\*Structural Oecology A lecture and laboratory course of fifty hours and research in conjunction with Courses 4 and 5 Professor Thomson

12—\*Poisonous Plants 100 hour lecture and laboratory course Professor H B Sifton

*Note*—Courses indicated\* are offered as Minors, or in conjunction with advanced work, literature, problems and research in a special division of the field as Majors

Courses indicated † are available as Majors only, and must be taken in conjunction with the subjects specified

Except for the conditions mentioned above (Sections 1-4), no restrictions are imposed with reference to the selection of major and minor subjects. Students are advised, in making a preliminary choice of subjects, to keep in view the possible requirements of their future fields of work

## ZYMOLOGY

### DEGREE OF MASTER OF ARTS

Candidates for this degree will be required to show that they have reached the standard for the degree of B A, or its equivalent, in at least two of the following subjects: Biochemistry, Organic Chemistry, General Physiology or Plant Physiology. In addition to work done in prescribed courses candidates are required to present a thesis based on research work done in the Department.

## DEGREE OF DOCTOR OF PHILOSOPHY

Candidates for this degree will be required to show that they have reached graduate standing in two or more of the subjects enumerated above. The thesis presented with the application must constitute a distinct contribution to the knowledge of the subject. Candidates are advised to choose Minors in accordance with the Regulations for the Degree from the following:

- Biochemistry 2 and 4
- Pathology and Bacteriology 2
- General Physiology 2 and 4
- Organic Chemistry 1 and 2
- Physics 11 and 16

## COURSES OF INSTRUCTION

1 *Microbiology* Course of lectures throughout the year on the theoretical aspects and practical applications of yeasts, molds and bacteria

2 *Laboratory Course* Conducted in conjunction with Course 1

3 *Enzyme Chemistry* Advanced lectures on the preparation and properties of enzymes and the theory of enzyme action

Candidates taking a Minor in Zymology are required to attend Courses 1 and 2

## ANATOMY

## DEGREE OF MASTER OF ARTS

Any of the minor courses described below may be taken as leading to the degree of Master of Arts. Course 5 is also open to those who have covered the ground represented by the Minors.

## DEGREE OF DOCTOR OF PHILOSOPHY

The work required of candidates for the degree of Doctor of Philosophy with a Major in Anatomy will be principally the preparation of a thesis based upon an investigation of some anatomical problem, together with the reading of the literature cognate to the research.

As a preliminary requirement it will be necessary that the candidate shall have taken a course in General Biology and courses in Vertebrate Anatomy (Biology Course 2), Histology and Embryology. The last two may be taken as Minors.

Candidates taking a Major in this Department are recommended to select their Minors from the departments of Anatomy, Zoology, Physiology, Biochemistry, and Pathology.



## COURSES OF INSTRUCTION

The following courses of instruction are offered by the department

1—Human Anatomy Laboratory and lectures Sixteen hours a week throughout the year Professor McMurrich and Professor Watt

2—Human Microscopic Anatomy A laboratory course of 100 hours including histological technique Professor Piersol

3—Anatomy of the Nervous System Lectures and Demonstrations Sixty-four hours Professor Linell

4—Vertebrate Embryology A laboratory course of 100 hours Professor Piersol

5—Advanced Human Anatomy Laboratory and reading Professors McMurrich, Piersol, Watt and Linell

Courses 1-4 are offered as minors Course 5 is open only to those who have taken Courses 1-4 While the advanced work and research will lie mainly in one special field (Gross Anatomy, Neurology, Embryology, Histology) the subject selected will be followed into the associated fields, one of which may be selected as a Minor

## BIOCHEMISTRY

## DEGREE OF MASTER OF ARTS

Candidates for this degree are accepted under the general regulations. All candidates who have not previously taken the course of lectures and laboratory work in advanced Biochemistry (Biochemistry 2 and 4) or its equivalent, will be required to take this course

## DEGREE OF DOCTOR OF PHILOSOPHY

Candidates for the degree of Doctor of Philosophy are required to submit a thesis which constitutes a distinct addition to the knowledge of the subject, and of such value as to merit publication in one of the leading scientific journals

Candidates for the degree of Doctor of Philosophy in this department who do not intend taking Physiology as a minor are reminded that the relationship between these two Sciences is so intimate as to render a knowledge of the elements of mammalian physiology extremely advisable. Candidates are furthermore reminded that mathematics is becoming of very great importance in the investigation of the chemical phenomena of life, and they are strongly urged to acquire a knowledge of elementary differential and integral calculus and of statistical methods

Students taking their major in Biochemistry may select their minors from any other division of graduate study offered by the University The following subjects of study are, however, suggested as appropriate adjuncts to the study of Biochemistry

Anatomy  
Bacteriology  
Biology  
Botany  
Chemistry  
Histology  
Household Science  
Mathematics  
Pathological Chemistry  
Pathology  
Pharmacology  
Physics  
Physiology  
Psychology  
Zymology

Candidates for the degree of Doctor of Philosophy who desire to take a minor in Biochemistry will be required to pass an examination covering the field comprised in Courses 1, 2, 3 and 4

#### COURSES OF INSTRUCTION

- 1—General Biochemistry    Ninety Lectures
- 2—Advanced Biochemistry    Sixty lectures
- 3—A Laboratory Course in General Biochemistry    One hundred and twenty hours
- 4—A Laboratory Course in Advanced Biochemistry
- 5—Research in Biochemistry

#### PHYSIOLOGY

##### DEGREE OF MASTER OF ARTS

Candidates for the degree are accepted under the general regulations. All candidates will be required to show credits for all the courses of this department or their equivalent. Courses 1, 2, 4 and 5 must be completed before entering upon the work for the M A degree. The other Courses may be taken simultaneously.

#### COURSES OF INSTRUCTION

The following courses of instruction each extending throughout the session are offered

- 1 Systematic lectures, two a week during second and third years
  - (a) General and neuro-muscular physiology
  - (b) Physiology of circulation, respiration, digestion and secretion

(c) Metabolism, the functions of the ductless glands and reproduction

(d) Physiology of the central nervous system and special senses

2 Lectures in General Physiology

3 Advanced lectures, two a week (third year—optional)

4 General Laboratory courses (total 180 hours)

5 Laboratory course in General Physiology

6 Advanced Laboratory courses (optional)

7 Research in Physiology

8 Journal Club, one hour a week

9 Optional course Laboratory work in selected parts of subject (available to students of the third and subsequent years in the Medical faculty)

10 History of Physiology A course of lectures supplemented by discussions towards which the students contribute

#### DEGREE OF DOCTOR OF PHILOSOPHY

Candidates for the degree of Doctor of Philosophy are required to submit a thesis which constitutes a distinct addition to the knowledge of the subject, and of such value as to merit publication in one of the leading scientific journals

Candidates for the degree of Doctor of Philosophy in this department who do not intend taking Biochemistry as a minor, or have not already taken the undergraduate courses in this subject are reminded that these two sciences are so intimate as to render a knowledge of general Biochemistry extremely advisable. They should at least take courses 1 (General Biochemistry) and 3 (a laboratory course in General Biochemistry) of the Department of Biochemistry. A general course in experimental Pharmacology is also almost essential. Certain courses in Biology, which should include vertebrate histology and cytology (7) comparative neurology (16) are of importance. A good training in Physics such as that mapped out for the honour degree in Physiology and Biochemistry is required. Similar courses in Mathematics are also required save in exceptional circumstances. Certain other courses in Physics are recommended. Students taking their major in Physiology may select their minors from any other division of graduate study offered by the University. The following subjects are suggested as appropriate, their relative importance as adjunct to the study of Physiology being indicated in a general way by the order in which they stand

Biochemistry (1 and 3)

Biochemistry (4)

Pharmacology

Histology and Cytology (7 or 8 Biol)

Neurology (11 Biol and 3 Anat)

and one or more of the following

Embryology (9 Biol )  
General Biology (1 Biol )  
Mathematics  
Pathological Chemistry  
Physics 7, 19, 21  
Psychology

When Physiology is taken as a minor, courses 1 and 4 are required as detailed above

## FOOD CHEMISTRY

### DEGREE OF MASTER OF ARTS

Candidates for this degree are accepted under the general regulations

### COURSES OF INSTRUCTION

1—The Chemical Nature of the Constituents of Foods Lectures and laboratory work

2—Fundamental Studies of Nutrition Lectures and laboratory work

## PATHOLOGY AND BACTERIOLOGY

### DEGREE OF MASTER OF ARTS

Candidates for this degree are accepted under the general regulations

### DEGREE OF DOCTOR OF PHILOSOPHY

Candidates for the degree of Doctor of Philosophy are required to submit a thesis which constitutes a distinct addition to the knowledge of the subject, and of such value as to merit publication in one of the leading scientific journals

Candidates in this department may proceed to the degree in either of the following major division

Experimental Pathology

Bacteriology, including Immunology.

As these two departments are closely inter-related candidates are reminded that either major division may necessarily include considerable work in the other and that consequently neither can be accepted as a minor

Candidates taking Experimental Pathology are reminded that a prerequisite for the study of experimental pathology is a knowledge of Physiology and those who do not propose taking Physiology as a minor must show credits of undergraduate work of honour standing

Candidates taking Bacteriology and Immunology must similarly take Biochemistry or Pathological Chemistry as a minor or show credits of honour undergraduate standing in these subjects

The following subjects are suggested as minors

Physiology 1 and 4  
 Biochemistry 1 and 4  
 Pathological Chemistry 1, 3 and 4  
 Chemistry 4 and 5  
 Biology 1 and 8  
 Physics 9 and 18  
 Botany 2 or 3

The following courses are offered as minors

#### Bacteriology.

1—A laboratory course of one hundred and thirty-five hours in the principles and technique of Bacteriology and Immunology and the application of this subject to Medicine supplemented by a course of lectures (30 hours)

2—A laboratory course of sixty-five hours in Immunology

#### General Pathology

1—A course of lecture upon the principles of Pathology (50 hours), along with a laboratory of one hundred hours, illustrating the important phases of the subject

## PATHOLOGICAL CHEMISTRY

### DEGREE OF DOCTOR OF PHILOSOPHY

Candidates proceeding to the degree of Doctor of Philosophy in this department must cover the field of Pathological Chemistry in addition to the investigation of some selected problem

Students taking their Major in this department are recommended to select their Minors from the following

Chemistry, A or C  
 Biochemistry  
 Physiology  
 Pathology.

### COURSES OF INSTRUCTION

- 1—General Pathological Chemistry   Thirty lectures
- 2—Special Pathological Chemistry
- 3—Elementary Laboratory Course   Sixty hours
- 4—Advanced Laboratory Course   Sixty hours

The following Minor is offered by the department

Pathological Chemistry A—Courses 1, 3 and 4

## CHEMISTRY

## DEGREE OF MASTER OF ARTS

A student who is proceeding to the degree of Master of Arts in accordance with the general regulations must consult the staff as to the selection of suitable courses of study

## DEGREE OF DOCTOR OF PHILOSOPHY

The thesis submitted for the degree of Doctor of Philosophy in this department must constitute a distinct contribution to the knowledge of the subject

The following major divisions leading to the degree are offered

Organic Chemistry

Physical Chemistry

Candidates taking a Major in either of these divisions may not select as Minors Chemistry A, C, or E. The following Minors are recommended

*Major subject*—Organic Chemistry

*Minors*—Chemistry D

and

Bio-chemistry A, Pathological Chemistry A, or Botany 6

*Major subject*—Physical Chemistry

*Minors*—Chemistry B, Mathematics A, Physics A or Physics B

## COURSES OF INSTRUCTION

The following courses of instruction are open to graduate students. The selection of any of these courses presupposes an adequate knowledge of elementary Chemistry

1—Systematic Organic Chemistry. Fifty lectures. (Open only to students who have already attended a preliminary course) Professor Allan

2—Practical Organic Chemistry. Seventy-five hours

3—Advanced Organic Chemistry. Heterocyclic Compounds, Synthetic Methods, Stereochemistry. Fifty lectures. Professor Allan

4—Physical Chemistry. Fifty lectures. (Open only to students who have already taken a preliminary course and have had instruction in the calculus) Professor Kenrick

5—Practical Physical Chemistry. Seventy-five hours

6—Advanced Physical Chemistry. The Phase Rule and Chemical Thermodynamics. Seventy-five lectures. Professor Miller.

7—Inorganic Chemistry. A course of reading on topics selected with reference to the major subject. The candidate must give evidence of proficiency in chemical analysis

8—Chemical Theory. Sixty hours

9—Mathematical Chemistry. Sixty hours

The following Minors are offered by this department

Chemistry A—Courses 1 and 2

" B—Course 3

" C—Courses 4 and 5

" D—Course 6

" E—Course 7

## GEOLOGY AND PALAEOONTOLOGY

### DEGREE OF MASTER OF ARTS

Candidates for the degree of Master of Arts are accepted in this department under the general regulations

### DEGREE OF DOCTOR OF PHILOSOPHY

Candidates for the degree of Doctor of Philosophy are required to submit a thesis which constitutes a distinct addition to the knowledge of the subject. In addition to the necessary preparation in Geology, a candidate must possess an adequate knowledge of the cognate sciences—Biology, Chemistry, Physics, and Mineralogy.

The following divisions constitute Majors in this department

Geology

Stratigraphical Geology and Palaeontology

Economic Geology

### COURSES OF INSTRUCTION

The courses of instruction open to graduate students are given below. None of these courses, as part of either a Major or a Minor, may be taken by a candidate without a preparatory knowledge of the subject

1—Dynamical and Structural Geology Fifty lectures

Professor MacLean

2—Invertebrate Palaeontology Fifty lectures on Morphology and Classification

Professor Parks

3—Practical Invertebrate Palaeontology Seventy-five hours

Professor Parks

4—Precambrian Geology Twenty-five lectures

Professor Moore

5—Glacial Geology and Physiography Twenty-five lectures

Professor MacLean

6—Economic Geology Fifty lectures

Professor Moore

7—Stratigraphical Geology Seventy-five hours lectures and laboratory

Professor Parks

8—Mining Geology. Twenty-five lectures

Professor Moore

9—Practical Economic Geology Fifty hours

Professor Moore

10—Metamorphism Twenty-five lectures

Professor Moore

- 11—Geological Climatology Twenty-five lectures Professor MacLean
- 12—Advanced Stratigraphy and Palaeontology One afternoon a week covering the geological column in three years Session of 1924-25, the Mesozoic Professor Parks
- 13—Palaeontology Twenty-five lectures on special topics selected from year to year Professor Parks
- 14—Principles of origin and occurrence of economic mineral deposits Professor Moore
- 15—Geological Seminar One hour per week
- 16—Field work (a) Pleistocene Geology, two weeks, (b) Precambrian Geology, two weeks, (c) Palaeozoic Geology, two weeks
- Candidates pursuing a Major in any of the divisions of the department may select one but not two Minors from the departments of Geology and Mineralogy combined The following Minors are recommended for candidates taking a Major in this department

MAJOR	MINORS RECOMMENDED
Geology	Mineralogy A, B, or C, and Chemistry E or Biology 3
Stratigraphical Geology and Palaeontology	Geology A or C, or Mineralogy A and Chemistry E, or Biology 1, 3, or 11
Economic Geology	Geology A or B or Mineralogy A or C and Chemistry C, or Physics A or B

The following Minors are offered by the department

Geology A—Courses 1, 4, and 5

Geology B—Courses 2, 3, and 7

Geology C—Courses 6, 8, and 9

## MINERALOGY

### DEGREE OF MASTER OF ARTS

Candidates for this degree are accepted under the general regulations

### DEGREE OF DOCTOR OF PHILOSOPHY

In addition to the necessary preparation in Mineralogy proper, a candidate for admission to Mineralogy as a Major must possess an adequate knowledge of the cognate sciences—Chemistry, Physics, and Geology

The thesis submitted for the degree must indicate that the candidate has made a distinct contribution to the knowledge of his subject



# COURSES OF INSTRUCTION

- 1—Systematic Mineralogy A course of twenty-five hours lectures and twenty-five hours laboratory Professor Parsons
- 2—Morphological Crystallography A course of twenty-five lectures Professor Walker
- 3—Blowpipe Analysis and Determinative Mineralogy Seventy-five hours laboratory Professor Thomson
- 4—Determinative Mineralogy Fifty hours laboratory in continuation of No 3 Professor Thomson
- 5—Practical Crystallography Seventy-five hours crystal measurement, drawing, projection, etc Professor Parsons
- 6—Physical Mineralogy A course of twenty-five lectures and twenty-five hours laboratory Professor Walker and Assistants
- 7—Petrography Twenty-five hours lectures and laboratory Professor Walker.
- 8—Advanced Petrography. Twenty-five lectures Professor Walker.
- 9—Petrography Fifty hours laboratory Professor Walker
- 10—History of Mineralogy Twenty-five lectures Professor Walker
- 11—Optical Mineralogy One hundred hours Professor Walker
- 12—Mineralography Fifty hours Professor Thomson

The Minors offered by this department are not available for candidates taking Mineralogy as a Major For such candidates the following Minors are recommended

Geology A, or Geology B, or Geology C  
and  
Chemistry C, or Chemistry E

The following groups of courses constitute Minors in this department

- Mineralogy A—Courses 1, 2, 3, 4 and 6
- Mineralogy B—Courses 1, 2, 5, 6, 9 and 12
- Mineralogy C—Courses 1, 2, 6, 7, 8, 9 and 12

It is assumed that the candidate possesses a general acquaintance with the subject before entering on his studies as outlined above.

# HYGIENE AND PREVENTIVE MEDICINE

## DEGREE OF MASTER OF ARTS

A student who is proceeding to the degree of Master of Arts in accordance with the general regulations must consult the Head of the Department in reference to the selection of suitable courses of study

## DEGREE OF DOCTOR OF PHILOSOPHY

Candidates for the degree of Doctor of Philosophy in this Department are required to submit a thesis, which constitutes a distinct contribution to the knowledge of the subject. The work required will be that necessary for the preparation of the thesis and a study of literature cognate to the subject under investigation.

The following Major Divisions leading to the degree are offered

Hygiene  
Preventive Medicine

Candidates taking their Major in this department are recommended to select their minors from the Departments of

Physiology  
Biochemistry  
Biology  
Chemistry  
Zymology  
Physics

## COURSES OF INSTRUCTION

- 1 *Hygiene and Preventive Medicine*—42 lectures and demonstrations
- 2 *Advanced Public Health Bacteriology and Immunology*—Laboratory course of about 250 hours
- 3 *Sensitry Chemistry*—Laboratory course of about 72 hours
- 4 *Vital Statistics*—Elementary laboratory course

## HOUSEHOLD SCIENCE

## DEGREE OF MASTER OF ARTS

Candidates for this degree are accepted under the general regulations.

## COURSES OF INSTRUCTION

- 1 *Economics of the Household*—Lectures and discussions two hours a week
- 2 *An Advanced Course in Economics of the Household*—Reading and discussions
- 3 *Dietetics*—Lectures and laboratory work
- 4 *Dietotherapy*—Lectures, laboratory work and discussions
- 5 *Household Science Seminar*—One hour a week



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DEPARTMENT OF SOCIAL SERVICE

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## THE DEPARTMENT OF SOCIAL SERVICE

In 1914 the University of Toronto established, in its Department of Social Service, the first university training school in Canada for social workers, and in 1920 it founded the first university chair of Social Science

The Department, in planning its courses, has in view the following kinds of men and women, assuming a fair degree of maturity and education

- 1 Those intending to make social service a life work
- 2 Those already doing some form of social work, but desiring more knowledge, either in their own or some related subject, or in the general setting of social service
- 3 Volunteer workers wishing to increase their effectiveness, and understand the problems with which they come in contact
- 4 Those desirous of exercising their trusteeship on committees of social agencies, or administrative boards
- 5 Those wishing to know more about the problems of the community to which they owe the responsibility of citizenship

## GENERAL STATEMENT

A *The Diploma Course* is planned in the belief that a thorough training for any kind of social work must be based on the study both of the whole social organization, and of individual and family problems. It is highly desirable that the student should gain a working knowledge of the leading forms of social service, in whatever form his future work may lie

B *Part-time Students* Every encouragement is given to students who are only able to give part of their time, most of the classes are open to them on consultation with the staff, though field work cannot be provided. Part-time study is found specially valuable for volunteer or part-time workers, board members, missionaries on furlough, probation, deaconess, and other students who can combine some work in this Department with the major subjects of their training

## THE DIPLOMA COURSE

The certificate formerly given on one year's course has been discontinued and the Diploma Course is now covered in two years. Intending applicants are advised to arrange a personal interview with the Director in June or September and as a preparation for this the following guidance as to qualifications is given

## ADMISSION

*Full-time students* will be admitted on the following qualifications

1 Graduation from university or college This, though not essential, is the most desirable preparation for entrance, both from the point of view of the work itself, and for eventual leadership in social service

Graduates may be given exemption from lectures in certain first year subjects, if they have taken them in their undergraduate course, they will be required to take the final examinations, unless they have been admitted to more advanced courses

2 Matriculation is the minimum entrance requirement The Department is open to consider applications from non-matriculants, but only if their experience has been educationally (not necessarily academically) more than equal to matriculation Wherever possible, those who intend to train for social service should at least complete their matriculation

3 Applicants with previous experience of social work will have special consideration, if they show sufficient general training to be able successfully to handle the work, and if their experience has been such as to give reasonable warrant of their fitness for the vocation

4 Only in special cases will students be admitted over 35 or under 21

(a) Applicants over the age limit will be admitted only if their social experience and prospects of successful training are satisfactory

(b) Intending applicants under the limit are urged to spend one or more years in university work, giving voluntary service in settlements or clubs The Department will gladly assist, if desired, in the choice of courses, looking to the time when students leaving school intending to train for social work (but not to follow a degree course), will take two years of selected courses in the University, thus completing with the Diploma a carefully planned 4 years of university education

5 The full time work of the second year is open to those who have completed the requirements of the first year, or who have taken its equivalent in an accepted institution elsewhere

6 Intending applicants who wish to take advantage of the interval before entering can be advised as to reading or practice, such preliminary work is always an advantage

7 Application forms may be obtained from the Secretary, to whom they should be returned as soon as possible

8 All full-time students are admitted on probation Any student who is, in the opinion of the staff, very unlikely to succeed in social work, will be advised to withdraw

## PROGRAMME OF DIPLOMA COURSE

The two years' work leading to the Diploma includes courses on the fundamentals of social science and on the principles and methods of social work In addition to this students spend two days weekly in super-

vised Field work and are required to do one month's continuous Field work in the long vacation between the first and second years. The courses are as follows

<i>First Year</i>	<i>Second Year</i>
Social Economics	Social Evolution
Psychology	Social Psychology
Social Ethics	Social Economics
Hygiene and Public Health	Social Ethics
Community Organization	Case Work Seminar
Social Case Work	Psychiatry
Case Work Methods	Industrial Legislation
The Community and the Child	Field Work Conferences
Field Work Conferences	

#### ELECTIVES

Two electives are to be chosen in each year in consultation with the staff and with special relation to Field Work

Recreation and Playground Work  
Problems of Rural Life  
Work with Boys  
Settlement Work  
Juvenile Court Proceedings

#### FIELD WORK

The development of social work in Toronto is increasing the opportunities for Field Work. At the present time many of the city agencies co-operate with the Department by providing supervised field work for students, while many other agencies and institutions co-operate by providing scope for observation and study.

In the first year the students, in consultation with the Director of Field Work, choose between the two general fields of family case work and community work. The stipulation, however, is made that a prescribed portion of the field work of either the first or second year must be in case work, unless the student has had such experience previous to entering the course. Students whose experience warrants it are given a choice of specialized forms of work in the second year.

Candidates for the Diploma spend a minimum of four half days weekly in field work, and in addition are required to do one month of continuous work between the first and second years.

#### RANKING FOR DIPLOMA CREDITS

*In Written Work* the pass mark is 60% on the total of all papers and 50% on each paper.

First Year students may be conditioned in two subjects if their general average is 60% or over.

Second Year students may be conditioned in two subjects if their general average is 70% or over

*In Field Work* students are classified A, B, C, and D. In the first year "C" standing, with the indication of better work, will be accepted. In the second year Field Work standing of "B" grade is required.

## COURSES OF INSTRUCTION

### FIRST YEAR

#### 1 SOCIAL ECONOMICS

A course on the elementary principles of economics, value, utility, wealth individual and national, the relation of wealth to welfare, competitive and anti-competitive forces, followed by certain applications to the problems of the wage-system and its alternatives, trade-unionism, unemployment, women in industry, juvenile labour, conditions of industrial work, and the distribution of wealth and poverty

PROFESSOR MACIVER

#### 2 PSYCHOLOGY

The meaning, point of view and methods of psychology. Consciousness and the unconscious. The aspects of mental development (a) sensation and association of ideas, (b) habit and instinct, (c) emotion and sentiment. Mental conflict and character.

MISS BANHAM

#### 3 SOCIAL ETHICS

The course will deal with the basal conceptions in Ethics, and their application to the problems of personal conduct and social relations. The basis of morals in human nature, the influences of heredity and environment, standards, motives, and sanctions of conduct, moral education, the sphere of morals in community life.

PROFESSOR ROBINSON

#### 4 HYGIENE AND PUBLIC HEALTH

A lecture course dealing with the principles of Public Hygiene, including a discussion of preventable diseases and preventable deaths. The communicable diseases are classified and their modes of infection and methods of control, elucidated. Community control of Tuberculosis, Venereal Diseases and Infant Mortality are emphasized. Industrial Hygiene, Vital Statistics and the activities of governmental and voluntary health promoting agencies are considered.

PROFESSOR FRASER

#### 5 COMMUNITY ORGANIZATION

The nature and development of social forms, associations and institutions, within community. The extension and development of community life. Its focal points: home, school, church, club, union. The



organization of industry, of philanthropy Experiments in social organization, the community centre, the health centre, the "city unit", the garden city, etc

PROFESSOR DALE

#### 6 SOCIAL CASE WORK

Social Backgrounds The English Poor Law, the effects of the Industrial Revolution, the Charity Organization movement, modern ideals of case-work, principles and methods, interpretation and diagnosis as the basis of treatment

MR STAPLEFORD

#### 7 CASE WORK METHODS

Individual and family maladjustments and case-work treatment studied through the medium of case records This course is closely related to field work and a written study based on field work experience is a requisite for Diploma Credit

MR STAPLEFORD

#### 8 THE COMMUNITY AND THE CHILD

The development of principles and methods of child welfare, including the study of legislation Preventive measures in relation to the normal child, the dependent, defective, delinquent and neglected child Modern accepted standards in child welfare

MR BRYCE

#### 9 FIELD WORK CONFERENCE

Relation of Field Work to lectures Consideration of current events in social work Special weekly assignments and related reading Receiving students' written and verbal reports Discussions arising out of field work experience

MISS MCGREGOR

### SECOND YEAR

#### 10 SOCIAL EVOLUTION

Primitive society types and stages Family, clan, tribe and nation The evolution of institutions The various modes of competition and co-operation Various conceptions of the state and society, with special reference to contemporary discussions and experiments in reconstruction

The psychological bases of social evolution the instincts in society, self-realization and repression, personality and community, the individual and his environment, adaptation and maladjustment

PROFESSOR DALE

#### 11 SOCIAL PSYCHOLOGY

Man in society the herd instinct—suggestion, sympathy, imitation Work and fatigue, play and recreation Adolescence, abnormality, delinquency, and functional mental disorders Education and re-education

## 12 SOCIAL ECONOMICS

A course dealing with the Industrial Revolution, tracing the development of modern capitalism, the factory system, associations of capital and of labour, industrial legislation, and explaining in general the social and political reactions of modern industrial changes

## 13 SOCIAL ETHICS

The ethical development of society, and the relation of the individual to it, nature of social progress and the forces controlling it, the relation of the individual to the state, and the grounds of civic obligation, modern social conditions and problems in their ethical aspects

PROFESSOR ROBINSON

## 14 CASE DISCUSSION SEMINAR

The case work method with special reference to child welfare The study of records illustrating principles and methods of care for dependent, neglected and delinquent children Child caring institutions and their evolution In this course a thesis based on field work experience is required of Diploma candidates

MR STAPLEFORD

## 15 PSYCHIATRY

Definitions of fallacious sense perceptions, such as hallucinations, illusions, delusions, etc Symptoms, cause and treatment of mental diseases Mental deficiency, epilepsy, heredity Clinical demonstrations and examinations History and case taking Relations of social work to psychiatry

DR E K CLARKE

## 16 INDUSTRIAL LEGISLATION

Modern tendencies in the industrial order State-help and self-help Canadian movements The principle of minimum standards, in wages, hours and working conditions Development of social insurance throughout the world Unemployment Industrial casualties Sickness Old age The framing of laws Their administration

PROFESSOR MACMILLAN

## ELECTIVE (See page 680)

## 17 RECREATION AND PLAYGROUND WORK

The playground and recreation centre movement, history, organization and administration The playground supervisor Community organization and recreation Mental, moral and physical value of recreation

Part of the course will be devoted to the practice and teaching of organized games, folk dancing and musical games, suitable for both adults and children

MISS HODGKINS

#### 18 PROBLEMS OF RURAL LIFE

A course designed to show the important relationship between country and city life. The purpose aimed at is to discuss the symptoms, causes and suggested remedies for rural unrest as evinced in rural migration and other phenomena of country life. The work of various agencies in dealing with country life will be outlined, and a constructive programme for rural community building suggested.

MR. MACLAREN

#### 19 SOCIETY AND THE BOY

A study, based upon an investigation of individual boys, of the effects of our social institutions on boy life. The home, church and Sunday school, public school, social and industrial conditions, recreational facilities. Students taking this as part of a full-time Boys' Work course will be in charge of actual groups or clubs of boys.

DR. HAYWARD

#### 20 BOY BEHAVIOUR AND METHODS OF BOYS' WORK

(a) The physical, mental, social and religious development of the boy through the various stages of life

(b) Plans and programmes of work

DR. HAYWARD

#### 21 SETTLEMENTS

The history of the settlement movement, the nature of the work undertaken by settlements and the results which they accomplish. Plan of organization and the departments which usually develop, e.g., social, educational, religious, medical, etc. Value of club work. Adaptability of settlements to different districts and conditions. Application of their principles to rural and urban centres and to community centres of various kinds.

MRS. PARKER

#### 22 JUVENILE COURT PROCEEDINGS

History of the Juvenile Court and Probation, the personnel of the Court, the departments and how each functions, the procedure in court cases, the meaning of Probation, explanation of Acts 220A and 242A of the Criminal Code, Deserted Wives and Children's Maintenance Act, and certain sections of the Children's Protection Act and the Juvenile Delinquent Act, the law of evidence and court etiquette.

## FEES

The tuition fee for the Diploma course is \$45 for each year This fee is payable as follows PLEASE NOTE CAREFULLY

\$40 in advance, to the Bursar of the University, Simcoe Hall

\$5 in advance, to the Secretary of the Department (this fee is set apart towards the purchase of instructional material)

The \$40 may be paid by instalments of \$20 payable in October and \$21 payable in January

After October 31st, a penalty of \$1 per month will be imposed until the whole amount is paid In the case of payment by instalments the same rule as to penalty will apply A student will not be admitted to any of the University lectures or laboratories who is in arrears for his fees.

Part-time students pay to the Bursar \$5 for each subject, and to the Secretary of the Department \$2 irrespective of the number of subjects taken

## THE SOCIAL SERVICE BUILDING

Is at the South East Entrance to the University Grounds, on the north side of College Street, just west of University Avenue Its Library, through the generosity of the McCormick Estate, possesses a good collection of books, reports, periodicals, and bulletins on social subjects The use of the library and reading room is extended to social workers and other interested readers, on payment of the departmental fee of \$1 The staff welcomes enquiries for information on social matters, and does its best to meet them

## INFORMATION

For further information address *The Department of Social Service, University of Toronto* Those who are within reach will find a personal consultation at the office desirable



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DEPARTMENT OF PUBLIC HEALTH NURSING

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## THE DEPARTMENT OF PUBLIC HEALTH NURSING

This new Department began its work in September 1920, and is a school in which graduate nurses may obtain training for public health nursing. We are thus helping to prepare a new occupational group called into existence by the emphasis now being put upon organized health work in all civilized countries.

Extensive public health programmes are being formulated in every Province of the Dominion of Canada, programmes set forth by many agencies both state and voluntary, but all alike in that they include work which is to be carried on by nurses. It is, therefore, imperative that facilities for the training of such nurses should be provided in this country. In Canada it has been assumed that the usual three years hospital training is a pre-requisite for a public health nurse, but, at the same time, it is realized that that hospital training alone cannot equip the nurse for this task. She must add to it some specific training for this highly specialized branch of work. Of necessity, the pioneers have had to train in the slow school of experience, for there was no other training available, but that is too expensive and wasteful a method to be prolonged unduly, and it is no longer necessary as the University now offers this year of special training to graduate nurses who wish to prepare for the public health field.

The public health nurse, in conjunction with the public health doctor, is directing her energies to the teaching of health and the prevention of disease. Both nurse and doctor are being trained to work back from sickness and physical defect to a study of their causes and thence to a study of the means of prevention, in order that they may teach, and may apply in the community, those means of prevention. The nurse is usually the connecting link between the public health administrator and the people whom he would reach with his health teaching and health legislation. Her work lies in the home, the school, the factory and the clinic.

The establishment of the Department of Public Health Nursing in the University was made possible in 1920 through the generous assistance of the Ontario Branch of the Canadian Red Cross Society, which organization undertook to meet the expenses of the new Department for a period of three years. In 1923, full responsibility for the Department was assumed by the University.

## OPPORTUNITIES FOR THE NURSE IN PUBLIC HEALTH WORK

The developments in this work during the last few years have been so remarkable that we would emphasize the opportunities which it offers to well trained nurses. The school nurse is increasingly in demand for both town and country schools, and the same demand is growing for the community nurse who, usually as a member of the local Health Officer's staff, will carry on various forms of health work. Perhaps the most frequent service asked from the community nurse is in connection with the work of Infant Hygiene, starting with that, other specialties are added to her work, the scope of which varies considerably in different localities.

There are also many teaching and executive positions open to nurses but these positions all demand a very highly qualified woman. General education, technical training and personality are all of such importance that there are as yet few women prepared to meet the demands of this ever widening field. This is a piece of work which offers unbounded opportunities for interesting and valuable service, and the University course has much to offer to the student who wishes to prepare for it.



## ENTRANCE REQUIREMENTS

1 Applications for admission will be considered from the following classes of students

- (a) The student who has obtained complete credit for Pass Matriculation
- (b) The student who submits certificates other than those of Ontario which have been recognized by the University as equivalent in value to Pass Matriculation
- (c) The student of mature age who has not complete Pass Matriculation or its equivalent. Such a student must submit with her application official statements with reference to her secondary and professional education

2 In addition, all applicants must present evidence of certain professional training in nursing as follows: nurses from countries or states where registration is available must be eligible for registration, nurses from countries or states where registration is not available must submit a record of their hospital training for special consideration

3 Students must be not more than 35 years of age when entering the Department

4 Exceptions to the above rulings may be made in favour of nurses who have been engaged in public health nursing for two years or more

5 Preference will be given to applicants who have the broadest preliminary education and to early applicants. Only fifty students can be accepted in this class

## PART TIME STUDENTS

Nurses wishing to take the full course over a prolonged period may, under certain conditions, register for selected lecture courses in one year, and complete the work in a second year

Nurses may register as occasional students for any one or more of the lecture courses in the regular curriculum if the class be not already overcrowded. If such occasional students meet the entrance standard of the Department, credit will be allowed for the work that they cover

## GENERAL INFORMATION

Application forms may be obtained by writing to the Secretary, the Department of Public Health Nursing, University of Toronto

Nurses desiring admission to the training course, but uncertain as to their eligibility, should write personally to the Department for further information, addressing the Secretary. If possible a personal interview will be arranged. The Office of the Department at No. 1 Queen's Park, is open during the summer months

Applicants should understand that this course demands their full time for the whole of the academic year, and that it is quite impossible to take the full course and do any other professional work at the same time

It is a difficult matter to arrange this course to include all that is desirable in such a short time. The University and the City of Toronto have so much to offer to the keen student that she will have to choose wisely in order to keep her work within reasonable bounds. The Director will have special office hours for consultation with the students in order that all may have help and advice when they need it

Applicants are also warned that the demands of this course are such that only those in good physical health can do the work. In addition, it should be understood that the future work of a public health nurse is likely to be of an arduous nature, and that a nurse who is not in good condition physically cannot hope to meet the requirements of this field

## STUDENTS WITH PREVIOUS PUBLIC HEALTH EXPERIENCE

It appears that nurses who have already been engaged in public health work are now seeking the special training which was not available in the past. If such students enter the Department, special care will be taken in planning their practical work. No student will be required to do field work which she has already covered under satisfactory conditions. She will receive credit for that, and as far as time and opportunity allow, specially selected work will be arranged to take its place

This information applies to nurses who have been working with a Visiting Nurse Association

## FEES

The tuition fee for the regular full time course is \$60 if paid in October. After October a penalty of \$1 00 a month will be imposed until the whole amount is paid.

A fee of \$1 00 must be paid by all students for the use of the Department Library at No. 8 Queen's Park.

The fees for part time students will be	
For a course in any one subject for the Session	\$5 00
For a one term course (15 hours)	\$3 00

## EXPENSES

There is no University residence for the students of this Department. Board and lodging may be obtained in the vicinity of the College buildings from \$10 00 per week upwards.

The students must be prepared to meet a small expenditure for carfare while doing practical work.

Text books may be bought at the University Book Room. Copies of all prescribed text books will be kept in the University Library.

## SCHOLARSHIPS

A number of scholarships are available for the students in this Department during the year 1924-1925.

The Ontario Red Cross is offering one scholarship of \$350 00. Nurses interested in that offer should write to the office of that Society, 410 Sherbourne Street, Toronto.

The Victorian Order of Nurses is offering a small number of scholarships of \$400 00 each. These are only open to nurses undertaking to work with the Order after completing the course. For further information applicants should write to the Chief Superintendent, Victorian Order of Nurses, Jackson Building, Ottawa.

A few Nurses' Alumnae Associations have also offered scholarships open to their own members.

## DIPLOMA AND EXAMINATIONS

A Diploma will be granted to all students who have completed the required work of the Department. Each student will be required (1) to do satisfactory class work throughout the year, (2) to receive a satisfactory report upon her practical work, and (3) to make the required pass mark upon the final examinations of the Department.

Supplemental examinations in the work of this Department will be held in September if necessary.

## BUILDINGS

The offices of the Department are located in the building occupied by the Department of Medicine at No 1 Queen's Park. The students are sharing the use of the lecture rooms, reading rooms, and library in the Social Service Building at No 8 Queen's Park.

## LIBRARY

The general Library of the University is contained in a separate building situated on the East side of the campus.

The Department of Social Service has, in its own building, a valuable branch library, the use of which has been extended to the Public Health Nursing students.

For the convenience of the students certain of the prescribed text books, magazines, and pamphlets belonging to the Department of Public Health Nursing are housed in the reading rooms of the Department of Social Service.

The Public Library of Toronto is situated at the corner of St. George and College Sts., about three minutes walk from the University buildings. Any student may have the free use of its books, it is only necessary to have a card of recommendation signed by a Toronto householder.

## PHYSICAL TRAINING

Classes in physical training for the women students of the University are given at the Household Science Building. These include gymnasium and swimming instruction. The students of the Department of Public Health Nursing are admitted to those classes upon payment of the usual fee of four dollars.

## EXTENSION COURSES

I It is expected that a short Extension Course, two to three weeks in length, will be arranged annually for nurses with previous experience or training in public health work. The next course of that type will probably be arranged for January, 1925. Only a small registration fee is required for admission to that work, and no special entrance standard beyond the professional qualifications stated above. No certificates are awarded.

The content of the Extension Courses will vary according to the demands of the applicants. It is hoped in this way to provide pioneer workers and early graduates of this Department with an opportunity for keeping their work up to date.

II It is possible during the College year to arrange a course of weekly lectures upon some one subject of interest to the public health nurse, if the demand for any special subject be sufficiently strong. During the Session 1923-24 a course of eight lectures on Diet in Health and in Disease was given. Any such work provided during the Session 1924-25 will depend upon the demand for it.

Inquiries about these courses may be addressed to the Secretary of the Department of Public Health Nursing, University of Toronto.

## CURRICULUM FOR THE DIPLOMA OF PUBLIC HEALTH NURSING

The Department offers to its students a general training course in Public Health Nursing, its theory and practice. It is hoped thus to prepare nurses to serve effectively in any public health organization, whether the work be administered under a provincial or local Health Department, a provincial or local Department of Education, a Visiting Nurse Association, or other local Health Association.

The work of the student is divided into two parts: (1) Theoretical—consisting of lecture courses and class work, and (2) Practical work, which in such courses is commonly called field work.

Students will be expected to complete satisfactorily the required term work of the course before being allowed to write the final examination.

### LECTURE AND LABORATORY COURSES

These courses fall into two groups:

I Major subjects which are required of all students

II Short courses. The selection from this group must be made in conference with the Director. The decision will be based upon the work covered previously in the hospital training school. At least three of these subjects must be included in each student's programme.

#### I

1 Public Health Nursing

MISS RUSSELL, MISS COWAN, AND  
SPECIAL LECTURERS

Lectures, excursions, prescribed reading and conferences. The course deals with the organization and administration of public health nursing, special fields, principles, methods, and technique. Six of the special branches of this work, viz., Child Hygiene, School Nursing, Tuberculosis Nursing, Venereal Disease Nursing, Industrial Nursing, and Hospital Social Service are dealt with in some detail by special lecturers, the lecturer in each case being a nurse who has specialized in the work of that particular field.

2 Preventive Medicine and Hygiene (including Sanitary Engineering)

a Lecture Course

{ DR R R McCLENAHAN  
PROFESSOR GILLESPIE  
DR J GRANT CUNNINGHAM

Aims of Preventive Medicine, brief historical review of the development of the subject to the present time.

Preventable diseases and preventable deaths, volume and kind of present mortality and morbidity Classification of communicable diseases Incidence, etiology, modes of transmission and methods of control of communicable diseases Methods of dealing with special public health problems, such as maternal and infant mortality, tuberculosis, venereal diseases, etc., problem of the degenerative diseases and cancer Industrial hygiene, occupational diseases, workman's compensation Public health centres and clinics Vital statistics, public health education and publicity Public health organization and administration Sanitary engineering problems, community and home sanitation

b Laboratory Course Elementary Bacteriology { PROFESSOR FRASER  
MISS M MAITLAND

3 Psychology MISS K M BANHAM

The meaning, point of view and methods of psychology Laws governing human behaviour Consciousness and the unconscious The aspects of mental development (a) sensation and association of ideas, (b) habit and instinct, (c) emotion and sentiment Mental conflict and character

4 Methods in Health Teaching MISS RUSSELL

In connection with this subject certain practice teaching is required from each student

5 Social Work—Principles and Practice MR F. N STAPLEFORD

A brief survey of social disabilities, and the modern methods adopted for their prevention and treatment, with a study of the principles governing these methods The case method of dealing with problems of social disability Various types of social agency, the co-ordination of these agencies

6 Nutrition and Dietetics MISS A L LAIRD

The course includes a discussion of the essentials of an adequate diet, the nutritive values of common food stuffs, food costs as compared with food values, the planning of dietary budgets for individual and family groups with special reference to economic and social conditions

## II.

- 1 Medicine a review course consisting of lectures and clinics at the Out-patients' Departments of the general hospitals and of the Hospital for Sick Children

a Paediatrics and Infant Hygiene	DR ALAN BROWN
b Venereal Diseases	DR GORDON BATES
c Tuberculosis and other Chest Diseases	DR J H ELLIOTT
d Obstetrics	DR GORDON GALLIE
e Communicable Diseases In this case the teaching will be given in connection with bedside clinics	DR BEVERLEY HANNAH

- 2 Oral Hygiene DR WALLACE SECCOMBE

A short lecture course, illustrated with charts and lantern, covering the more important dental problems as they affect the nurse. The subject is approached particularly from the preventive side, and includes development and dietetic influences, proper use and care of the teeth, mastication and toilet of the mouth. The diseases of the teeth and surrounding tissues, and the relation of these to general health, are discussed, along with simple remedies for the relief of pain.

- 3 Mental Hygiene DR ERIC CLARKE

The course covers Mental Hygiene procedure in the community, in the schools, and in hospital treatment, the history of mental disorders and the nature of mental disease and defect, the various types of which are dealt with, showing the course, symptoms, diagnosis and treatment. Lantern lectures are included in the series. Clinical work is arranged at the psychiatric clinic of the Toronto General Hospital.

- 4 Community and School Hygiene DR J T PHAIR

- a School Medical Inspection and School Hygiene.
- b Rural School Problems and their Health Application

- 5 Social Economics PROFESSOR MACIVER

This course will consist of an introduction to some practical economic problems bearing directly upon social welfare such as, changes in the cost of living and in standards of life, labour organization, methods of arbitration and conciliation, unemployment and its remedies, social insurance against unemployment, sickness, invalidity and accident, workmen's compensation, the minimum wage.



## PRACTICAL WORK

## 1 The practical work will be arranged as follows

(a) One month's work starting September 2nd No student may enter upon the lecture work of the year unless at least one month of practical work has been covered Students may receive credit for previous experience in public health nursing (i.e. with a State Health Department or a Visiting Nurse Association), if it satisfy our requirements In that case the practical work in September will not be required

(b) Six weeks' work between the middle of April and the 1st of June

(c) The year's study will necessarily include some participation in the practice of public health nursing during the whole lecture period, but no routine district work will be carried by the student during that lecture period, i.e. from October to March

## 2 The above periods of practical work may be arranged with the following Toronto organizations and workers

The Department of Public Health

The Victorian Order of Nurses

The Social Service Department of the Toronto General Hospital

The Neighbourhood Workers Association (an Association doing family welfare work)

The National Tuberculosis Association (at the Gage Institute)

Industrial nurses

3 Some rural and small town practical training has become available So far such opportunities have been very limited, but they will probably be more extensive in the future Such experience may be open to the student who is prepared for a small amount of extra expense for travelling and living while out of town Every effort is made to reduce this expense to a minimum When the student can be placed with a county nurse working on the outskirts of Toronto, this extra cost will be obviated

## 4 Weekly conferences are held in connection with this work

5 Written studies of the more extensive pieces of public health work in which the student engages must be submitted These reports form one of the final tests for the Diploma

6 Students are asked to give very careful consideration to the following information concerning practical work

(a) The Department is dependent upon the courtesy of these health organizations for this work for its students, therefore any rules made by the organizations must be observed without questioning

(b) Difficulties of arrangement in such work may make slightly unusual demands upon the time of the student

(c) No street uniform is worn by the students, but certain dress regulations have been imposed by the organizations providing field work, and must be observed by the student *while doing field work*

(i) A tailored cloth suit or long coat must be worn, and with that a wash blouse or wash dress

(ii) For the work with the Victorian Order of Nurses it will be necessary for each student to provide herself with a full-length apron to be worn while in the sick room. A linen laboratory coat is very suitable for this purpose

(iii) *No fur coats, fur-trimmed coats, or fur collars may be worn*

(d) Boston bags are provided for the use of students while on duty

(e) No exceptions can be made to the rules, and all students entering the Department must sign a statement that they are prepared to observe both the letter and the spirit thereof

7 Students will be required to cover the full period of practical work. If, for any reason, the work is interrupted, the period will be prolonged to cover the number of days lost

8 No student will be required to repeat practical work which she has already covered under satisfactory conditions. She will receive credit for that, and, as far as time and opportunity allow, special work will be arranged

## TEXT BOOKS

The following is a partial list of the text books recommended for the use of the students in this Department

- Book of Home Nursing—Campbell
- Care and Feeding of Children—Holt
- Chemistry of Food and Nutrition—Sherman
- Children Astray—Drucker and Hexter
- Dietetics for Nurses—Proudfit
- Economics for the General Reader—Clay
- Essentials of Medicine—Emerson
- Essentials of Psychology—Pillsbury
- Evolution of Public Health Nursing—Brainard
- Feeding the Family—Rose
- Food Products—Sherman
- Handbook for School Nurses—Kelly and Bradshaw
- Healthy Child from Two to Seven—McCarthy
- History of Nursing—Nutting and Dock
- Home and Community Hygiene—Broadhurst
- Industrial Nursing—Wright
- Life of Florence Nightingale—Cook
- Mental Conflicts and Misconduct—Healy
- Mental Diseases—Gulick
- Mental Hygiene and the Public Health Nurse—Macdonald
- New Public Health—Hill
- Normal Child—Brown
- Nursing in Diseases of Children—Leo-Wolf
- Obstetrical Nursing—Von Blarcom
- Organization of Public Health Nursing—Brainard
- Outline of the Practice of Preventive Medicine—Newman
- Personal Hygiene Applied—Williams
- Practice of Preventive Medicine—FitzGerald
- Preventive Medicine and Hygiene—Rosenau
- Principles and Practice of Nursing—Harmer
- Primer of Hygiene—Ritchie and Caldwell
- Primer of Physiology—Ritchie
- Primer of Sanitation—Ritchie

Prospective Mother—Siemons  
Psychology for Students of Education—Gates  
Public Health Nursing—Gardner  
Sanitation for Public Health Nurses—Hill  
Short History of Nursing—Dock and Stewart  
Social Work—Cabot  
Social Work—Devine  
Social Work in Hospitals—Cannon  
Study of Canadian Immigration—Smith  
Syphilis and the Public Health—Vedder  
Talks to Teachers on Psychology and Life's Ideals—James  
Textbook of Simple Nursing Procedure for High Schools—Pope  
What is Social Case Work—Richmond



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CURRICULUM IN LAW

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## DEGREE OF BACHELOR OF LAWS

The following curriculum for the degree of Bachelor of Laws will remain in force until June 30th, 1929, after which date a revised curriculum, a draft of which appears on page 8, will become fully operative.

Candidates for the degree of LL B must have

- (a) produced satisfactory certificates of conduct,
- (b) matriculated in the Faculty of Law,
- (c) passed the prescribed examinations,
- (d) attained the age of twenty-one years

Any person having the degree of Bachelor of Arts or of Master of Arts in the University of Toronto, or any person having the degree of Bachelor of Arts or of Master of Arts of an approved University, or any person who has been admitted to the Bar by the Law Society of Upper Canada, may enter the Department of Law at the Third Year of the course of study in that Department, but prior to presenting himself for the final examination in the course of the degree of LL B he shall pass in addition to the examinations of the Third and Fourth Years in the Department of Law, the following examinations in the Faculty of Arts, viz —

1 ENGLISH CONSTITUTIONAL HISTORY Honour examinations of the Second and Third Years (History, 2f, p 103, 3c, p 104)

2 ENGLISH CONSTITUTIONAL LAW Honour examination of the Third Year (Law 3c, p 113)

3 COLONIAL CONSTITUTIONAL LAW Honour examination of the Third Year (Law, 3d, p 113)

4 ROMAN LAW Honour examination of the Third Year (Law 3b, p 113)

5 HISTORY OF ENGLISH LAW Honour examination of the Third Year (Law 3a, p 112)

6 POLITICAL ECONOMY Honour examination of the Second Year (Political Economy, 2a, 2b, p 108)

7 JURISPRUDENCE Honour examination of the Fourth Year (Law, 4c, p 114)

8 INTERNATIONAL LAW Honour examination of the Fourth Year (Law, 4d, p 114)

9 CANADIAN CONSTITUTIONAL HISTORY Honour examination of the Fourth Year (History, 4f, p 105)

10 CANADIAN CONSTITUTIONAL LAW Honour examination of the Fourth Year (Law, 4a, p 113)

11 FEDERAL INSTITUTIONS Honour examination of the Fourth Year (Law, 4b, p 113)

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The references in Nos 1-11 are to the Calendar of the Faculty of Arts, 1924-1925

Any person who has been admitted as a student-at-law by the Law Society of Upper Canada and who is a candidate for the Second Year Examination as required by the Law Society may enter the Department of Law at the Third Year, but the results of his examination of the Third Year will be withheld pending the announcement by the Law Society of the results of the Second Year Examination. Such a candidate may present himself for examination in the prescribed Arts subjects during the Third and Fourth Years of the Law course.

Undergraduates in the Faculty of Arts, who intend to proceed to the degree of LL B, may take these examinations either during their Arts course or during the Third and Fourth Years of their Law course.

#### MATRICULATION

The Matriculation examination in the Faculty of Law shall be identical with the examination of the First Year in the Undergraduate Pass Course. English, Latin, one of Greek, French, German, Hebrew, Italian *or* Spanish, a second optional language *or* Science, Algebra and Geometry, Ancient History *or* Trigonometry *or* Religious Knowledge.

#### FIRST YEAR

The subjects of examination in the First Year in the Faculty of Law are as follows —

(a) Subjects of the Pass Course in the Faculty of Arts in which Pass standing will be required —

- 1 English of the Third Year
- 2, 3 Any two of the following subjects of the Second Year, viz — Latin, Greek, French, German, Hebrew, Physics, Zoology, Botany, Chemistry, Geology of which one must be a language

- 4 History of the Second Year
- 5 Ethics of the Third Year
- 6 History of Philosophy of the Third Year

(b) Subjects of the Political Science Course, in which Honour standing will be required —

- 1 English Constitutional History of the Second and Third Years
- 2 English and Colonial Constitutional Law of the Third Year
- 3 Political Economy of the Third Year
- 4 History of English Law of the Third Year
- 5 Roman Law of the Third Year

#### SECOND YEAR

The subjects of examination in the Second Year in the Faculty of Law shall be as follows, viz —

(a) Subjects of the Pass Course in the Faculty of Arts in which Pass standing will be required —



1 English of the Fourth Year

2, 3 Any two of the following languages of the Third Year —Latin  
Greek, French, German, Hebrew

(b) Subjects of the Political Science Course, in which Honour standing will be required —

1 Modern History of the Third Year

2 Canadian Constitutional History of the Fourth Year

3 Public Finance of the Fourth Year

4 Political Philosophy of the Fourth Year

5 Jurisprudence of the Fourth Year

6 Public International Law of the Fourth Year

7 Federal Constitutional Law of the Fourth Year

### THIRD YEAR

1 Common Law

Broom's Common Law

2 Personal Property

Williams

3 History of the Law of Real  
Property

Digby

4 Contracts

Anson

5 Law of Torts

{ Salmond, English ed  
Pollock

6 Equity

{ Maitland's Lectures on Equity  
Smith's Principles of Equity

7 Roman Law of *Obligations*

{ Justinian, Institutes 3 13-4 5  
Gaius, Institutes 3 88-3 225  
Mackintosh, Roman Law of Sale

8 Canadian Constitutional Law

Clement

Additional subjects for candidates for the American Law Book Company's Prize —

9 The Law of Companies

{ Palmer's Company Law  
Robson and Hugg's Leading Cases  
on Company Law

10 Municipal Corporation Law The Powers of Municipal Corporations to make contracts, and the manner in which they may contract, the general principles governing the exercise of these powers to pass by-laws and their powers to create or establish highways and their liabilities with respect to the same when created The Municipal Act (R S O 1914 c 192), Meredith and Wilkinson's or Robson and Hugg's Municipal Manual, and Robson and Hugg's Leading Cases, so far as they relate to the named subjects

Each candidate for the American Law Book Company's Prize must present a thesis upon some subject relating to either of the additional subjects on or before the 31st of March in the year in which he presents himself for

examination in his Third Year in the Faculty of Law. The subject of the thesis for the Prize for 1925 is "The advantages and disadvantages from a legal point of view and otherwise of the government of cities by Commission under special Act, as compared with the present system under the Municipal Act"

## FOURTH YEAR

1 Medical Jurisprudence	Reese
2 Law of Real Property	Armour's Real Property
3 Commercial Law	{ Chalmers' Sale of Goods, with the Ontario Act of 1920
	{ Falconbridge's Banking and Bills of Exchange, Book II
4 Conflict of Laws	{ Dicey's Conflict of Laws, or Westlake's Private International Law
5 Law of Companies	{ Masten and Fraser's Canadian Law of Companies
	{ Robson and Hugg's Leading Cases on Company Law
6 Construction and Operation of Statutes	Craie's Hardcastle on Statutes
7 Criminal Law	{ Harris's Criminal Law or Kenny's Outline of Criminal Law
	{ Stephen's General View of the Criminal Law
8 Domestic Relations	Eversley, Parts 1, 2 and 3

Each candidate for the degree of LL B must present a thesis satisfactory to the examiners in Law, upon some subject embraced in the curriculum, on or before the 31st March in the year in which he presents himself for examination in his Fourth Year in the Faculty of Law, or on or before the said date in any subsequent year. The subject of the thesis will be prescribed by the Senate, and will be announced at least eight months before the date upon which it is due. An oral examination on the subject of the thesis may be required at the option of the examiners in Law. Candidates for the degree may defer presenting the thesis until a subsequent annual examination, in which case the fee for examination shall be \$10

## FEES

The following fees must be paid —

For matriculation or entrance	\$10 00
For each examination after matriculation	10 00
For each supplemental examination	10 00
For the degree of LL B	20 00
For admission <i>ad eundem gradum</i> , LL B	20 00

A candidate will not be admitted to an examination unless he has paid all the fees due from him. A candidate who fails to pay his examination fees on or before the fifteenth of March—the last day for receiving fees prior to the May examination—must pay an additional fee of one dollar.

A candidate who fails to send his application for examination by the day appointed for receiving such applications must pay an additional fee of one dollar.

#### EXAMINATIONS

The examinations will take place in the month of May.

Every student who purposes presenting himself at any examination is required to send to the Registrar, not later than March 15th, a paper (according to a printed form which will be provided on application) stating his standing, and whether he is a candidate for Honours or otherwise.

Candidates who at any examination have failed in not more than two subjects may, with the consent of the Senate, present themselves for examination in such subjects at the next ensuing Supplemental examinations.

Undergraduates below the Fourth Year in the Faculty of Law, who have been rejected or who have been prevented from attending the Annual examinations in May by sickness or other cause beyond their control, may, with the consent of the Senate, present themselves in September, at the time of the Supplemental examinations in Arts.

Candidates in the Faculty of Law shall not be required to pass an examination on those subjects in which they have already passed the required examination in the University of Toronto, or an equivalent examination in the course of studies prescribed by the Law Society of Upper Canada. Graduates in any Honour Course in the Faculty of Arts of this University shall not be required to pass an examination in Economics and in English Constitutional History.

Candidates who have taken the course at the Law School are required to present to the Registrar a certificate from the Secretary of the Law Society, showing the subjects in the Law School curriculum on which the candidate has passed examinations at the said school, and such certificates shall entitle the candidate to exemption from examination on the subjects mentioned in said certificate, where said subjects are included in the University curriculum in Law.

#### SUBJECT OF THESIS

The following is the subject for Thesis for candidates for LL B for the year 1925, viz —

"A comparison of the rules of Justinian's Digest, I 3, with English Law on the subject of the Interpretation and Abrogation of Statutes, and an estimate of the English debt to Roman Law on this matter."

(The attention of candidates is especially directed to the rules established in the time of Coke. They are also reminded that Monro's unfinished translation of the Digest includes the first book.)

## REVISED CURRICULUM

Commencing with the Session 1925-1926, a revised curriculum for the LL B degree will become operative, the main features of which are outlined in the following sections

1 A candidate for the degree of Bachelor of Laws (LL B) shall have the degree of Bachelor of Arts or Master of Arts of the University of Toronto, or of an approved University, or similarly have completed the second year in the Faculty of Arts, or have completed the First Year at Osgoode Hall

2 The course for the degree shall include provision for examinations of the First, Second and Third Years The subjects of the first examination are taken from existing courses in the Faculty of Arts (see page 3 of this curriculum), but no candidate will be permitted to present himself for any portion of the second examination until he has completed the course for the First Year The subjects of the Second and Third Years are substantially those of the Third and Fourth Years of the present course, with developments within the sphere of the Civil Law

3 Any person who has been admitted to the Bar by the Law Society of Upper Canada may present himself for examination in the subjects of the Second and Third Years at one examination

## DEGREE OF MASTER OF LAWS

Candidates for the said Degree must have been admitted to the Degree of Bachelor of Laws, must be of the standing of one year from admission to the Degree of Bachelor of Laws, must have presented a thesis satisfactory to the examiners in Law, and to the special examiners of such thesis appointed by the Senate, on some branch of law or of the history or philosophy of law, and must have passed the following examinations in the Faculty of Law, viz —

1 History of English Law Pollock and Maitland, History of English Law

2 English Constitutional Law Gneist, History of the English Constitution, Select Cases in Constitutional Law—Broom, Constitutional Law, Part II (Relation of the Subject to the Executive), and Part III (Relation of the Subject to Parliament), Todd, Parliamentary Government in England

3 Canadian Constitutional Law Lefroy on Legislative Power in Canada, and subsequent reported cases on the subject

4 Criminal Law Stephen, History of the Criminal Law (omitting chapters on History of Procedure, Summary Jurisdiction, and Indian Criminal Law)

5 International Law Oppenheim, International Law, Third Edition Constitution of the League of Nations The British Orders in Council, 1914-1917, relating to the Declaration of London and to maritime retaliation, together with the related documents of other governments Stowell and Munro International Cases

6 Jurisprudence Salmond, Jurisprudence; Bryce, Studies in Jurisprudence, Hall, Foreign Jurisdiction of the British Crown

7 Roman Law Gaius and Ulpian, edition Muirhead, Roby's Roman Private Law in the times of Cicero and the Antonines

8 Civil Code of Lower Canada and Roman Dutch Law Text of the Civil Code, Lee, Roman Dutch Law

Candidates shall have the option of taking the examination in two groups—subjects 1 to 4 and subjects 5 to 8—the groups being taken in any years after the necessary LL B standing has been attained The thesis may be presented in the year of the second examination or in any subsequent year A candidate taking the eight subjects together, and failing, shall be awarded standing in the subjects in which he obtains the standard set for passing provided he secures the required percentage in not less than four of the eight subjects, the thesis being returned not read

The thesis must be sent to the Registrar in typewritten or printed form, not later than the thirty-first day of March

The Senate may appoint special examiners for the whole or any part of the work prescribed for examinations for said degree

The fee for the said degree shall be thirty dollars (\$30 00)

#### CERTIFICATES OF HONOUR

Certificates of Honour will be given at each examination to those students who have been placed in Honours The fee for such certificates shall be one dollar

#### PRIZES

The Edward Thompson Company's Prize of the first twenty-five volumes of the American and English Annotated Cases will be awarded to that undergraduate of First Year standing who as a candidate for the examination of the Second Year submits the best thesis on some branch of the law of Personal Property, of Contracts or of Trusts The subject for 1925 is "A study of the law of Trusts in relation to personal property"

The Canada Law Book Company's Prize of a set of Halsbury's Laws of England will be awarded to that graduate of this University who having completed his course in the department of Political Science, and having passed the First Year examination at Osgoode Hall, has written a thesis on

some portion of the work prescribed in the first examination at Osgoode Hall. The subject for 1925 is "A comparative study of the constitutions of Canada and Australia"

The award of these two prizes shall be made to the candidate who obtains the highest aggregate number of marks on all the subjects of the second examination and also the highest number of marks for the thesis and is recommended for the Prize by the regular and special examiners in Law. The thesis shall be sent to the Registrar, in typewritten or printed form, not later than the thirty-first of October, signed by the candidate's pseudonym, and shall be submitted to the special examiners for adjudication and report to the Senate. The special examiners shall, before the day of examination, fix the maximum number of marks to be allowed, and the minimum number of marks which must be obtained on the thesis. In determining the merit and value of the thesis, the examiners shall attach special importance to the literary qualities, and to the amount of original thought, research and investigation, which have been shown by the candidate in his treatment of the subject of the thesis.

The American Law Book Company's Prize of a complete set of their *Cyclopædia of Law and Procedure* will be awarded to the successful candidate in the Third Year who shall have obtained the highest aggregate number of marks in all the subjects of examination prescribed in the curriculum for said year, and also in the additional subjects of the Law of Companies and Municipal Law, prescribed for the said Prize, including a thesis upon some subject relating to either of those two additional subjects, and who shall be recommended for said prize by the examiners in Law and by the special examiners appointed to examine the thesis submitted by such candidates.

The Edward Thompson Company's Prizes of the American and English *Encyclopædia of Law* and of the *Encyclopædia of Pleading and Practice* will be awarded to the candidates for LL B who shall have received the highest and second highest aggregate number of marks at the examination for that degree in the Faculty of Law in all the subjects prescribed for the Fourth Year, including the thesis upon a legal subject, required of such candidates, and who shall be recommended for the Prizes by the examiners in Law, and the special examiners appointed to examine the thesis submitted by such candidates.

The American Law Book Company's Prize of a complete set of their *Cyclopædia of Law and Procedure* will be awarded to the successful candidate for LL M who shall have obtained the highest aggregate number of marks at the examination in subjects 5 to 8 for the said degree, including a thesis upon some branch of Law or of the history of philosophy of Law, and who shall be recommended for the said prize by the examiners in Law and by the special examiners to be appointed by the Senate to examine

## STANDARDS

The standing for passing shall in the case of Arts subjects be fifty per cent , and in the case of the Law subjects be fifty per cent on each subject of an examination, with an average of sixty per cent on the whole. The standard for Honours shall be an average of seventy-five per cent of the marks assigned to all the subjects of the Year.

## WORKS OF REFERENCE

American and English Annotated Cases, American and English Encyclopædia of Law, Cyclopædia of Law and Procedure, Encyclopædia of Pleadings and Practice, Halsbury's Laws of England, the English and Empire Digest

# CURRICULA AND REGULATIONS

FOR DEGREES AND DIPLOMAS IN

DENTISTRY

PHARMACY

AGRICULTURE

PHYSICAL TRAINING

VETERINARY SCIENCE



# CURRICULUM IN DENTISTRY

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## DEGREE OF DOCTOR OF DENTAL SURGERY

### MATRICULATION 1925

A candidate for admission to the course in Dentistry will be entitled to the status of an undergraduate who possesses one of the following qualifications

1 A certificate issued by the Ontario University Matriculation Board, of standing as for Pass Matriculation in the subjects of English, History, Mathematics, Latin, Experimental Science (Physics and Chemistry) and one of Greek, German, French, Italian, or Spanish (preferably French) It will be noted that the proposal has been abandoned for the present to include in the entrance requirements certain subjects of Honour Matriculation in addition to complete Pass Matriculation

2 A certificate of matriculation in the Faculty of Arts of an approved British or Canadian University

3 A certificate accepted by the General Medical Council of Great Britain for registration as a student of Medicine or Dentistry

4 A degree in Arts (not being an honorary degree) from some recognized University

### GENERAL

A certificate of standing as an unconditioned student of a University in the United States, may be accepted, but it must be on the basis of a complete four years' course in a High School accredited by the said University Such a certificate must include Latin for at least two years

Certificates other than those previously mentioned will be considered in determining the status of applicants as undergraduates

A candidate must hold the full entrance qualifications before he can be admitted

### ADMISSION TO ADVANCED STANDING

A candidate who has completed the Predental Year in a Provincial University in Canada may be admitted to the Second Year in the Department of Dentistry, provided that the course which he has taken at such University includes the following subjects English, French, Biology, Physics, Chemistry, and also provided that such standing has been secured after attendance at the University concerned

## FIRST YEAR

English, French, Drawing, Modelling, Chemistry, Physics, Biology, Shop Work, Hygiene, Ethics, Comparative Dental Anatomy, Physical Training

## SECOND YEAR

Chemistry, Metallurgy, Histology, Anatomy, Dental Anatomy, Prosthetic Dentistry, Crown and Bridge, Operative Dentistry, Physical Training

## THIRD YEAR

Chemistry, Metallurgy, Physics, Histology, Physiology, Materia Medica and Pharmacology, Dental Anatomy, Prosthetic Dentistry, Crown and Bridge, Operative Dentistry, Physical Training

## FOURTH YEAR

Bacteriology and Pathology, Prosthetic Dentistry, Crown and Bridge, Operative Dentistry, Preventive Dentistry, Ceramics, Periodontia and Prophylaxis, Electro-Therapeutics and Radiology, Orthodontia, Exodontia and Anaesthesia, Ethics and Jurisprudence, History of Dentistry, Dental Economics, Clinical Dentistry, Physical Training

## FIFTH YEAR

Bacteriology and Pathology, Applied Anatomy, Prosthetic Dentistry, Crown and Bridge, Operative Dentistry, Preventive Dentistry, Ceramics, Periodontia and Prophylaxis, Electro-Therapeutics and Radiology, Orthodontia, Medicine, Surgery, Exodontia and Anaesthesia, Dental Economics, Clinical Dentistry, Physical Training

## EXAMINATIONS AND STANDARDS

The standard for pass for all years and subjects and all sections or parts of subjects shall be 50 per cent of possible marks

No student will be permitted to enter a higher year without having first completed all the subjects of the lower year. A student who fails to meet this requirement must repeat the lower year.

All examinations are conducted under the joint direction of the Board and of the University. The term work done by the student in each subject may count as high as 50 per cent of the examination, and is reported by the instructor in charge of each subject. The report of the examiners may count as high as 50 per cent of the examination.

## SUPPLEMENTAL EXAMINATIONS

Supplemental examinations are held at convenient times for removing conditions. Applications, together with the fee to write or take a supplemental examination, must be in the hands of the Superintendent of the Royal College of Dental Surgeons at least fifteen days before the date set for the examination.

# CURRICULUM IN PHARMACY

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## DEGREE OF BACHELOR OF PHARMACY

### MATRICULATION

Candidates for the degree of Bachelor of Pharmacy must either —

- 1 Possess a degree in Arts (not an Honorary degree) from some recognized University, or
- 2 Have already matriculated in the Faculty of Arts in this or some other University in Canada, or
- 3 Be matriculants in the College of Physicians and Surgeons of Ontario

Provided always that all candidates registered as apprentices of the Ontario College of Pharmacy, or who have received the diploma of the College of Pharmacy up to the first day of July, A D 1898, shall be admitted as matriculants in the Department of Pharmacy on payment of the registration fee of five dollars

### REGULATIONS

Undergraduates (candidates for the degree) resident in the Province of Ontario must have complied with all the requirements prescribed from time to time by the Council of the Ontario College of Pharmacy for admission to examination for a diploma licensing to practise Pharmacy in Ontario, and must have received from the Registrar of the Ontario College of Pharmacy a certificate of having passed the final examination of that College

Candidates for the degree, not resident in Ontario, must have devoted at least four years (not being engaged in any other business) to the study of Pharmacy, being apprenticed during that time to a regularly qualified Pharmaceutical Chemist, must have attended the full courses of lectures embracing all the subjects of the curriculum, the length of each course being not less than that required from time to time by the Council at the Ontario College of Pharmacy, and including practical work of some College of Pharmacy recognized by this University, the last of which courses must be taken at the Ontario College of Pharmacy

All candidates who have, prior to August 15th, 1892, received the diploma of the Ontario College of Pharmacy will not be required to conform to the above, but will be allowed their degree on passing the examination on the subjects hereinafter given

Notice is hereby given that after July 1st, 1926, the course for the degree of Bachelor of Pharmacy shall extend over a period of at least two years

## EXAMINATIONS

Candidates for the degree must pass an examination to be held in the month of May of each year—hour and date of commencing to be hereafter given—must present to the Registrar satisfactory certificates covering all the requirements relating to undergraduates as given above, and of having passed the final examination of the Ontario College of Pharmacy

The subjects of the examination shall be as follows —

- 1 Botany and Microscopy
- 2 Theory and Practice of Chemistry and Toxicology
- 3 Materia Medica, including Posology and Pharmacognosy
- 4 Theory and Practice of Pharmacy, including interpretation of Prescriptions and Dispensing

These examinations shall be partly written, partly oral and partly practical

No candidate shall be considered as having passed the examination who has not obtained fifty per cent. of the marks allotted, nor shall a candidate be considered as having passed in any subject who has not obtained at least forty per cent. of the marks allotted to such subject

## FEES

For matriculation or registration of matriculation	\$5 00
For annual examination (each)	10 00
For each practical examination	0 50
For the degree of Phm B	10 00

No fee shall be charged for transference from any Faculty of this University to the Department of Pharmacy

# CURRICULUM IN AGRICULTURE

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## DEGREE OF BACHELOR OF THE SCIENCE OF AGRICULTURE

For many years students successfully completing the Two Year Course at the Ontario Agricultural College for the Associate Diploma, who obtained 50 per cent general proficiency and 60 per cent average in English subjects, were admitted to Third and Fourth Year Courses of study leading to the Degree of Bachelor of the Science of Agriculture. Commencing with the work of the First Year in the Session 1920-21 the Two Year Course for the Associate Diploma and the Four Year Course for the Degree of B S A became entirely separate and distinct Courses. Applications for admission to the Course leading to the Degree will be considered on the basis of "Qualifications for Admission" stated below. Students who have taken at least one year of the Course as it formerly existed, shall complete their Course under the old regulations.

### QUALIFICATIONS FOR ADMISSION

All candidates for admission to the Four Year Course leading to the Degree of B S A

- (a) Must be eighteen years of age on or before the opening day of college
- (b) Must produce satisfactory evidence as to moral character and physical ability
- (c) Must produce certificate of having spent at least one year at work on a farm, and must have a practical knowledge of ordinary farm operations, such as harnessing and driving horses, plowing, harrowing, drilling, etc. When it is thought necessary, this knowledge will be tested by an examination at entrance or at any subsequent date
- (d) Must at the request of the college physician submit to vaccination unless certificate of successful vaccination within two years is furnished
- (e) Must pay in advance tuition fees and laboratory charges and make the required deposits on account of board, contingencies and other fees
- (f) Must produce with application for entrance Ontario Pass Matriculation Certificate in Arts or Science except as defined in sub-sections 1 and 2 below

(1) Credits of candidates whose education has been obtained outside of the Province of Ontario will be considered by special committee of the college staff

(2) Candidates of mature age and extensive farm experience, but without Matriculation, may obtain admission to the Course leading to the degree by fulfilling the following conditions (i) the completion

of the two year Associate Course, obtaining 40 per cent in each subject of the second year with an average of 50 per cent together with 60 per cent in English, (ii) the completion of an Intermediate Year covering academic subjects exclusively, including English, Mathematics, Natural Sciences, and History. On the completion of the Intermediate Year such candidates will enter the Third Year of the Course leading to the degree.

All applications for admission *ad eundem statum* must be accompanied by official certificates of standing from the institutions where previous work has been done.

A student taking the Agriculture Option must have at least three years' practical farm experience before entering the Third Year.

A student taking the Dairy Option must have spent one season at practical work in each of three out of the following five: creamery, condenser, powder milk or city milk plant. A three months' Dairy School Course may be substituted for a season's experience in any one of the commercial plants.

#### FIRST YEAR

Agriculture—Animal Husbandry, Field Husbandry, Dairy Husbandry, Horticulture, Apiculture, Poultry, Agricultural Economics, Farm Mechanics  
Bacteriology  
Botany  
Chemistry  
English  
Physics  
Zoology

#### SECOND YEAR

Agriculture—Animal Husbandry, Field Husbandry, Dairy Husbandry  
Horticulture, Apiculture, Poultry, Farm Mechanics  
Bacteriology  
Botany  
Chemistry  
English  
Entomology  
Genetics  
Physics.

#### INTERMEDIATE YEAR

(To be taken by students who have satisfactorily completed the first two years of the Associate Diploma Course and who wish to qualify for admission to the degree course.)

Bacteriology, Botany, Chemistry, English, Entomology, Genetics  
History, Mathematics, Physics

## THIRD AND FOURTH YEARS

One of the following Options

- 1 General Agriculture
  - (a) Animal Husbandry
  - (b) Agronomy
- 2 Agricultural Engineering
- 3 Apiculture
- 4 Bacteriology
- 5 Botany
- 6 Chemistry
- 7 Dairy
- 8 Entomology
- 9 Horticulture

*Note*—Students entering the Third Year shall select their option not later than the 1st of April in the Second or Intermediate Years, after consultation with the head of the department concerned, and shall then notify the President of the College of their selection, and its approval by the Head above referred to

A student who has not been granted complete First Year standing may not enter upon any work of the Third Year, nor a student who has not been granted complete Second Year standing upon any work of the Fourth Year

## THESIS

Each Fourth Year student is required to prepare a Thesis on some branch of department of the work in his special course

The subject of each thesis must be approved by the Professor in whose Department it is taken, and must be submitted to the head of the Department of English who is convener of the Thesis Committee on or before the first of April of the Third Year. All theses must be handed to the Registrar on or before the first of April of the Fourth Year. No student whose thesis is unsatisfactory will be permitted to write on the Fourth Year examinations. The thesis must be based on original work. It must be typewritten on letter-sized paper (8½ x 11 inches) of good quality, and no corrections in writing must appear on the typewritten page. There must be a margin of one and a half inches on the left side of each page, and one inch on the other three sides, to allow for binding. Maps, charts, photographs, etc., must have one inch margin on the left side.

## EXAMINATIONS

## FIRST, SECOND AND THIRD YEARS

All First and Second Year students are required to pass two regular examinations during each year, one in December on the work of the fall term, and one in April on the work of the winter term, including classroom and laboratory work, experiments, etc. Third Year final examinations will be held in April.

## FINAL FOR THE DEGREE

Examinations for the degree of B S A are held annually, at the close of the Fourth Year, in the month of May.

## SUPPLEMENTAL

Candidates for supplemental examinations must notify the Registrar in writing, at least two weeks before the dates fixed in the Calendar.

## FEES

Before writing the final examinations for the Degree of B S A each candidate is required to pay the following fees to the Registrar of the College for transmission to the Bursar of the University—

Examination Fee	\$10 00
Degree Fee	10 00

The fee for a supplemental examination in the Final Year is \$10, payable to the Bursar of the University.

STANDARDS FOR PASS AND HONOURS IN THE FINAL  
EXAMINATIONS

First Class Honours	75%
Second Class Honours	60-74%
Third Class Honours	40-59%
Pass Standing	40%

Each student must obtain an average of 50% on all major subjects and 50% in term work.



# CURRICULUM IN PHYSICAL TRAINING

## DIPLOMA IN PHYSICAL TRAINING FOR WOMEN

A diploma will be granted to women students of the University who shall have completed to the satisfaction of the Senate the following courses in Physical Training —

### FIRST YEAR

#### THEORY

ELEMENTARY PHYSIOLOGY—A course of twenty lectures which will include a general account of the Anatomy of the human body, and a discussion of the elementary principles of physiology

PERSONAL HYGIENE—A course of ten lectures

#### PRACTICE

A course of three hours weekly in the gymnasium and swimming pool including general Gymnastics, Apparatus, Games, Dancing, and Swimming

### SECOND YEAR

#### THEORY

FIRST AID—Fifteen lectures in First Aid Course of the St. John's Ambulance Association

KINESIOLOGY—A course of ten lectures

#### PRACTICE

A course of four hours weekly in the Gymnasium and Swimming pool which will include General Gymnastics, Games, Dances, and Swimming

### THIRD YEAR

#### THEORY

GENERAL HYGIENE—A course of 25 lectures

THEORY OF PHYSICAL EDUCATION and methods of teaching a course of 10 lectures

#### PRACTICE

A course of five hours weekly in the Gymnasium and Swimming pool including advanced Gymnastics, Games, Dances, and Swimming—Practice Teaching and Life Saving

### FOURTH YEAR

#### THEORY

PHYSIOLOGY OF EXERCISE—A course of ten lectures

ANTHROPOMETRY—A course of ten lectures

HISTORY OF PHYSICAL EDUCATION—A course of ten lectures

#### PRACTICE

A course of 5 hours weekly in the Gymnasium and Swimming pool including Advanced Gymnastics, Remedial Exercises, Games, Dances, Practice Teaching, Ornamental Swimming

# CURRICULUM IN VETERINARY SCIENCE

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## DEGREE OF BACHELOR OF VETERINARY SCIENCE

The course leading to the Degree of Bachelor of Veterinary Science (B V Sc ), shall extend over a period of four academic years, of not less than seven months each

### MATRICULATION

The standard adopted for the entrance requirement is based upon the successful completion, or the equivalent, of a high school course of four years in a Collegiate Institute, High School or Continuation School

Candidates for admission to the Course in Veterinary Science must therefore, submit either—

- 1 A Normal Entrance of Junior Matriculation Certificate of Ontario
- 2 A Certificate, equivalent in standard, of any Province of Canada, of any part of the British Empire, or of the United States of America
- 3 Certificates other than those mentioned will be considered by the Senate in determining the status of applicants as undergraduates
- 4 A Certificate of having passed a qualifying examination in English Composition, English Literature, British and Canadian History, Ancient History, Algebra, Geometry, Physics, and Chemistry, similar to the Normal Entrance examination of Ontario and represented in general by the Second Class Teacher's examinations of the Provinces of Canada

To qualify for such a certificate candidates may present themselves at an examination centre in any Province of the Dominion at the time when the Department of Education of that Province holds its regular annual examinations, and at such other times and centres as may be approved by the Senate

### ADMISSION TO ADVANCED STANDING

A student of a recognized veterinary college, or agricultural college, may be admitted to standing on conditions to be determined in each case by the Senate upon the report of the Ontario Veterinary College

## CURRICULUM

Candidates for the Degree shall ordinarily complete the courses of instruction and examinations of the first, second and third years at the Ontario Veterinary College. The subjects of instruction and examination for the fourth year are as follows

Veterinary Medicine and Surgery  
Infectious and Contagious Diseases of Animals  
Obstetrics and Hygiene of Breeding Animals  
Veterinary Materia Medica and Therapeutics  
Pathology  
Bacteriology  
Meat and Milk Hygiene  
Veterinary Sanitary Service Laws and Regulations

Examinations at the end of the fourth year shall be conducted by examiners appointed by and under regulations approved by the Senate

The standard of passing shall be fifty per cent in each subject with an average of sixty per cent of the total number of marks assigned to the subjects

The first class honour standard is seventy-five per cent and the second class sixty per cent

Any student failing in not more than three of the above subjects may take supplementary examinations in these subjects, and upon passing the same shall be entitled to receive the Degree

Upon the successful passing of the examinations in the above subjects the students shall be entitled to receive the Degree of Bachelor of Veterinary Science (B V Sc)

## DEGREE OF DOCTOR OF VETERINARY SCIENCE

The degree of Doctor of Veterinary Science is intended to be conferred under such conditions as will denote its receipt only by those distinguished for professional eminence

A candidate for this degree shall be a graduate in Veterinary Science (B V Sc) of the University of Toronto of at least three years' standing. He must present a thesis embodying the results of an original investigation conducted by himself on some subject approved by the Senate not later than the first of January

The thesis must be based upon either

- (a) The results of a special research
- (b) The results of professional experience in a designated field allied to the live stock industry

(c) The results of a special course of study extending over at least one year

In order to be qualified for admission to the degree at the Annual Commencement in June, the thesis must be in the hands of the Registrar of the University not later than the first of May

#### FEEs

*(Subject to change)*

Members of the graduating class will require to pay a fee of \$10 00 for examinations and the degree of Bachelor of Veterinary Science (B V Sc ) This fee is to be paid to the Bursar of the University before writing the final examinations The fee for the degree of Doctor of Veterinary Science (D V Sc ) shall be \$15 00, which shall be paid on presentation of the thesis for the said Degree



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FEDERATED AND AFFILIATED COLLEGES

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## WYCLIFFE COLLEGE

Wycliffe College was founded in 1877 and incorporated in 1879. In 1885 it was affiliated with the University of Toronto, and federated in 1890 upon the proclamation of the Federation Act.

Its object is the Theological training of candidates for the ministry of the Church of England in Canada, and for the foreign missionary field.

In the University and University College its students receive instruction in the prescribed subjects of the Arts Course, as preliminary to the special study of Theology. The Theological course extends over a period of three years, and leads up to the degree of B.D., and D.D.

Part of the first year of the Theological Course may be taken concurrently with the Arts work of the University by means of the Theological options, and by following the schedule laid down in the Calendar of the College.

The first building of the College was erected in 1882. The work is now carried on in the second building erected in 1891, and added to in 1902, 1908, and in 1911, on the University Grounds and immediately adjoining the new Hart House. It contains rooms for 98 students, Convocation hall, lecture rooms, library, chapel, dining hall, etc.

Students are members of the Hart House, with its gymnasia and club rooms, and have all the privileges of the University.



## THE FACULTY

REV T R O'MEARA, D D , LL D , (*Principal*), *Professor of Practical Theology, Homiletics and Pastoral Theology*

REV DYSON HAGUE, M A , D.D , *Professor of Liturgics*

REV W E TAYLOR, M A , PH D , *Professor of Ecclesiastical History and Apologetics*

REV E A MCINTYRE, M A , D D , *Professor of Systematic Theology*

REV C V PILCHER, M A , D D , *Professor of Old Testament Literature and Exegesis*

REV B W HORAN, M A , B D , *Professor of New Testament Literature and Exegesis*

JOHN D FALCONBRIDGE, ESQ , M A , LL B , *Honorary Lecturer in Canon Law*

MIRIAM W BROWN, *Lecturer in Reading and Voice Culture*

*President and Chairman of the Council*

N W HOYLES, ESQ , B A , K C , LL D ,

*Representatives on the University Senate*

THE PRINCIPAL, N W HOYLES, ESQ , B A , K C , LL D

I D FALCONBRIDGE, ESQ , M A , LL B , K C

*Secretary to the Faculty*

REV W E TAYLOR, M A , D D

*Dean of Residence*

REV B W HORAN, M A , B D

*Librarian*

REV E A MCINTYRE, M.A , D D

*Bursar and Registrar*

H MORTIMER, ESQ C A

## KNOX COLLEGE

Knox College was established at Toronto in 1844, as a theological seminary in connection with the Synod of the Presbyterian Church of Canada (Free Church), which had been organized in the same year. In 1858 it was incorporated by Act of Parliament. In 1861, in consequence of the union of the Synod of the Free Church and that of the United Presbyterian Church, as the Synod of the Canada Presbyterian Church, Knox College and the Theological Institute of the United Presbyterian Synod were united. Since the Union of 1875 Knox has been a College of the Presbyterian Church in Canada.

After several changes of location the buildings on Spadina Avenue were erected in 1875 and were occupied until 1914 when the College moved to the beautiful new buildings facing on the University Lawn. Knox College was affiliated with the University of Toronto in 1885, and federated in 1890, upon the proclamation of the Federation Act. In the University and University College such of its students as are not proceeding to a degree receive instruction during three sessions in English, Latin, Greek, History, Logic, Mathematics, Chemistry, Biology, Physics, Psychology, Mental and Moral Philosophy and Hebrew. The Regular University Course leading to the degree of B. A. is the preparation expected of entrants in Theology. The course in Theology extends over three years. In addition to the required course, a special course of study leads to the degree of B. D. A number of scholarships and prizes are offered for competition in each year. Religious Knowledge options may be taken by students of the University in any year of their course, and Theological options taken in the Third and Fourth years may be counted as part of the regular course in Theology. Courses of study in the New Testament are provided in Knox College for every year of the Undergraduate course, and may be taken as Religious Knowledge options for the University degree.

The College is governed by "The Board of Management." Mr. Thomas Bradshaw, Chairman, Rev. R. C. Tibb, B. A., Secretary, The Treasurer of the Presbyterian Church in Canada is the Treasurer of Knox College. The "Board" consists of thirty-five members, appointed annually by the General Assembly of the Presbyterian Church in Canada.

## THE FACULTY

- REV ALFRED GANDIER, M A, D D, LL D, *Principal and Professor of Homiletics and Pastoral Theology, Christian Missions and the English Bible*
- REV T B KILPATRICK, D D, ST D (Hart), *Professor of Systematic Theology*
- REV WILLIAM MANSON, M A, B A, (Oxon), *Professor of New Testament Literature and Exegesis*
- REV RICHARD DAVIDSON, M A, PH D, D D, *Professor of Old Testament Literature and Exegesis*
- REV JOHN T MCNEILL, M A, PH D, *Professor of Church History*
- REV HUGH MATHESON, LL B, *Librarian*
- REV R C TIBB, B A, *Secretary of Senate*
- REV D M RAMSAY, D D, *Tutor in New Testament Greek*
- PROF PETER SANDIFORD, PH D, *Lecturer in Child Psychology and Pedagogy*
- REV ALEXANDER MACMILLAN, D D, *Lecturer on Hymnology and Church Music*

## VICTORIA UNIVERSITY

### FACULTY OF THEOLOGY

The Faculty of Theology in Victoria College was established in 1871 for the purpose of training candidates for the ministry of the Methodist Church. Its classes and degrees have, however, always been open to candidates for the ministry in any Church, and are now open to members in good standing in any Christian Church.

Instruction is provided in the various courses of study leading up to ordination in the Methodist Church, viz, the B D Course, the Course for Graduates in Arts, and the Course for Non-graduates. An arrangement has been entered into with Knox College for a large measure of co-operation in the work of instruction.

Undergraduates in Arts, whether candidates for the ministry or not, have the privilege of taking certain subjects in Theology as options in Religious Knowledge in the several years of their course, as indicated in this Calendar in the prescriptions of the Arts Courses.

For further information as to courses of study, fees, honours, prizes, scholarships and regulations, see the Theological Calendar of Victoria College, or apply to the Rev Professor J F McLaughlin, B A, D D, Dean of the Faculty of Theology.

### THE FACULTY

REV F H WALLACE, M A, D D, *Professor Emeritus*

REV J F McLAUGHLIN, B A, D D, *Professor of Old Testament Exegesis and Literature*

REV R P BOWLES, M A, D D, LL D, *Professor of Systematic Theology*

W B LANE, M A, PH D, *Professor of Ethics and Didactics*

REV W H GREAVES, M A, *Professor of Public Speaking*

REV A J JOHNSTON, B A, D D, *Professor of Homiletics and Pastoral Theology and of Church History*

REV J W MACMILLAN, B A, D D, *Professor of Sociology*

REV J H MICHAEL, M A, *Professor of New Testament Exegesis and Literature*

REV W A POTTER, M A, B D, *Associate Professor of Old Testament Exegesis and Literature*

REV F W LANGFORD, B A, M RE, *Associate Professor of Religious Pedagogy*

W T BROWN, M A, PH D, *Associate Professor of Ethics and Apologetics*

REV F L BARBER, M A, PH D, *Special Lecturer in History of Preaching*



- WALLACE SECCOMBE, L D S, D D S, *Professor of Preventive Dentistry*  
 JAMES C WATT, M A, M D, *Professor of Anatomy*  
 A E WEBSTER, M D S, D D S, M D, *Professor of Operative Dentistry,  
 and Therapeutics*  
 W EARL WILLMOTT, L D S, D D S, *Professor of Materia Medica and  
 Pharmacology*

ASSOCIATE PROFESSORS.

- I H ANTE, L D S, D D S, *Associate Professor, Prosthetic Dentistry and  
 Crown and Bridge*  
 J A BOTHWELL, L D S, D D S, *Associate Professor, Clinical Dentistry*  
 G H CORAM, L D S, D D S, *Associate Professor of Clinical Dentistry*  
 E A GRANT, L D S, D D S, *Associate Professor, Prosthetic Dentistry*  
 J W INGRAM, L D S, D D S, *Associate Professor of Operative Dentistry*  
 NORMAN T MACLAURIN, M B, *Associate Professor of Bacteriology*  
 W E WILLMOTT, L D S, D D S, *Associate Professor, Prosthetic Dentistry.*

LECTURERS.

- J W BEATTY, R C A, *Demonstrator in Art*  
 MISS M FOSTER, A O C A, *Demonstrator in Modelling*  
 HERBERT S MCKELLAR, B A, *Lecturer in French*  
 H S PALMER, *Assistant in Art*  
 EDWIN J PRATT, M A, B D, P H D, *Lecturer in English*

INSTRUCTORS IN DENTISTRY

- G L COLE, L D S, D D S, *Prosthetic Dentistry*  
 C A CORRIGAN, L D S, D D S, *Clinician, Orthodontia*  
 J H DUFF, L D S, D D S, *Clinician, Prosthetic Dentistry*  
 B R GARDINER, L D S, D D S, *Clinician, Anaesthesia and Exodontia*  
 W T HOLMES, L D S, D D S, *Operative Dentistry*  
 H A HOSKIN, L D S, D D S, *Clinician, Patients' Examination*  
 W L HUCILL, L D S, D D S, *Operative Dentistry*  
 F S JARMAN, L D S, D D S, *Clinician, Anaesthesia and Exodontia*  
 C A KENNEDY, L D S, D D S, *Clinician, Orthodontia*  
 L F KRUEGER, L D S, D D S, *Clinician, Operative Dentistry*  
 G V MORTON, L D S, D D S, *Anaesthesia and Exodontia*  
 S M RICHARDSON, L D S, D D S, *Operative Dentistry*  
 J M SHELDON, L D S, D D S, *Operative Dentistry*  
 W G SWITZER, L D S, D D S, *In Charge of Senior Laboratory*  
 W G TRELFORD, L D S, D D S, *Clinician, Periodontia*

## DEMONSTRATORS

- G D BEIERL, L D S, D D S, *Demonstrator, Operative Dentistry*  
 R M BOX, L D S, D D S, *Dental Pathology*  
 ABRAHAM BRODY, M A, M B, *Demonstrator, Physiology*  
 F W CLEMENT, M B, *Demonstrator, Osteology and Anatomy*  
 S S CROUCH, L D S, D D S, *Demonstrator, Operative Dentistry*  
 L R DAVISON, L D S, D D S, *Demonstrator, Physics*  
 R J GODFREY, L D S, D D S, *Demonstrator, Prosthetic Dentistry*  
 H H HALLORAN, L D S, D D S, *Demonstrator, Prosthetic Dentistry*  
 MISS W C RIDDLE, B A, *Demonstrator, Histology, Bacteriology and Pathology*  
 E M RIGSLY, *Shop Technic*  
 J L ROBINSON, M D, C M, *Demonstrator, Osteology and Anatomy*  
 H A ROSS, L D S, D D S, *Demonstrator, Operative Dentistry*  
 J M SHELDON, L D S, D D S, *Demonstrator, Operative Dentistry*  
 R R WALKER, L D S, D D S, *Demonstrator, Prosthetic Dentistry*  
 R S WOOLLATT, L D S, D D S, *Demonstrator, Prosthetic Dentistry*  
 W J I WRIGHT, B A Sc, *Physics*

## LIBRARIAN AND CURATOR OF MUSEUM

C A KENNEDY, I D S, D D S

## HONORARY CLINICIANS

- W B AMY, L D S, D D S  
 W L CHALMERS, L D S, D D S  
 HAROLD CLARK, L D S, D D S  
 CHAS E PEARSON, L D S, D D S  
 J F ROSS, L D S, D D S  
 W C SMITH, L D S, D D S  
 J N STEWART, I D S, D D S, Hamilton  
 A S THOMSON, L D S, D D S  
 C E SUTTON, L D S, D D S

The School of Dentistry of the Royal College of Dental Surgeons of Ontario was affiliated with the University of Toronto in 1888, and shortly thereafter an examination for the degree of Doctor in Dental Surgery was instituted in the University. See Curriculum in Dentistry elsewhere in this volume.

## ONTARIO COLLEGE OF PHARMACY

The Council of the College of Pharmacy, the biennially-elected governing body of the practising pharmacists of the Province of Ontario, began in 1882 to give instruction in the various subjects necessary for license for druggists. The College Building, situated in St James' Square, was erected in 1886, and the Faculty reorganized and extensive additions made to the building in 1891. In the same year affiliation was entered into with the University of Toronto. For curriculum, see p 716. For details as to laboratory and other courses, preliminary qualifications, etc., see Annual Announcement of the College, which may be had by addressing W. B. Graham, Registrar-Treasurer, Ontario College of Pharmacy, Toronto, Ontario.

## THE FACULTY

CHARLES F. HEEBNER, PH. G., PH. M. B., F. C. I. C., *Dean, Professor of Theory and Practice of Pharmacy and Dispensing, Director of the Pharmaceutical and Dispensing Laboratories*

JOHN T. FOTHERINGHAM, B. A., M. D. C. M., *Emeritus Professor of Materia Medica*

GRAHAM CHAMBERS, B. A., M. B., *Emeritus Professor of Chemistry*

GEORGE A. EVANS, PH. M. B., F. C. I. C., *Emeritus Professor of Chemistry*

PAUL L. SCOTT, M. B., *Professor of Biology*

R. O. HURST, PH. M. B., *Lecturer in Latin, Posology and Materia Medica*

ORVILLE P. WATSON, PH. M. B., *Lecturer in Chemistry and Physics, Director of the Chemical Laboratory*



## ONTARIO AGRICULTURAL COLLEGE

1924-1925

## ADMINISTRATIVE STAFF

J B REYNOLDS, M A, *President*  
 S SPRINGER, *Bursar*  
 A M PORTER, B S A, *Registrar*  
 MARGARET I ODROSKIE, *President's Secretary*  
 R E BALCH, B S A, *Dean of Residence*  
 ANNIE O HALLETT, *Librarian*  
 MARGARET M THOMPSON, B A, *Assistant Librarian*  
 GERTRUDE M HILBORN, *Assistant Librarian* *GA*  
 MRS K T FULLER, *Superintendent, Maidonald Hall*  
 MRS K GALBRAITH, *Matron*  
 MISS C MCKIEL, *Dietitian*  
 D F ADAMS, *Physical Director*

## FACULTY OF INSTRUCTION AND LABORATORY STAFF 1924-25

J B REYNOLDS, M A, *President*  
 H H DEAN, B S A, *Professor of Dairy Husbandry*  
 C A ZAVITZ, B S A, D Sc, *Professor of Field Husbandry.*  
 R HARCOURT, B S A, *Professor of Chemistry*  
 JOHN EVANS, *Professor of Manual Training*  
 W R GRAHAM, B S A, *Professor of Poultry Husbandry*  
 J E HOWITT, M S A, *Professor of Botany*  
 D H JONES, B S A, *Professor of Bacteriology*  
 O J STEVENSON, M A, D PAED, *Professor of English*  
 WADE TOULL, B S A, M S, *Professor of Animal Husbandry*  
 W C BLACKWOOD, B A Sc, *Professor of Physics*  
 F E MILLEN, B S A, *Professor of Apiculture*  
 A LEITCH, B S A, *Professor of Farm Economics*  
 OLIVE CRUIKSHANK, B A, *Director of Home Economics*  
 L CAESAR, B A, B S A, *Professor of Economic Entomology*  
 A W BAKER, B S A, *Professor of Entomology*  
 H H LEDREW, B S A, *Professor of Political Economy and Sociology*  
 R D COLQUETTE, B S A, *Professor of Marketing Economics*  
 F N MARCELLUS, B S A, *Professor of Poultry Husbandry*  
 A H MACLENNAN, B S A, *Professor of Horticulture*  
 J W MACARTHUR, M A, PH D, *Professor of Genetics*  
 W J SQUIRRELL, B S A, *Associate Professor of Field Husbandry*

- G H UNWIN, B S A , *Associate Professor of English*  
 H L FULMER, B S A , M A , *Associate Professor of Chemistry*  
 T H LUND, B S A , *Associate Professor of Bacteriology*  
 R E STONE, B Sc , PH D , *Associate Professor of Botany*  
 J C STICKLEY, B S A , *Associate Professor of Animal Husbandry*  
 R R GRAHAM, B A , B S A , *Associate Professor of Physics*  
 A H TOMLINSON, B S A , *Associate Professor of Horticulture*  
 A L GIBSON, B S A , *Associate Professor of Chemistry*  
 ANNIE ROSS, M D , C M , *Lecturer in Physiology, Home Nursing and Psychology*  
 E W KENDALL, *Specialist in Manual Training*  
 R C MOFFATT, M A , *Lecturer in Physics*  
 F L FERGUSON, B S A , *Lecturer in Physics*  
 G J SPENCER, B S A , *Lecturer in Entomology*  
 J COKE, B S A , *Lecturer in Farm Economics*  
 W H SPROULE, B S A , *Lecturer in Dairy Husbandry*  
 A DAVEY, B S A , *Lecturer in Bacteriology*  
 R G KNOX, B S A , *Lecturer in Animal Husbandry*  
 A C WHEATLEY, B A , *Lecturer in Chemistry*  
 E C MCLEAN, M A , *Lecturer in English*  
 E E REILLY, B S A , *Lecturer in Farm Economics*  
 O MCCONKEY, B S A , M S , *Lecturer in Field Husbandry*  
 D R SANDS, B S A , M S , *Lecturer in Botany*  
 D A KINBALL, B S A , *Lectures in Horticulture*  
 JEAN RODDICK, *Instructor in Domestic Science*  
 BELLA MILLAR, *Demonstrator in Dairying*  
 S R CURZON, B S A , *Demonstrator in Chemistry*  
 KATHARINE B DOUGHTY, *Demonstrator in Household Art*  
 W G EVANS, B S A , *Demonstrator in Botany*  
 J A FLOCK, B S A , *Demonstrator in Entomology*  
 S WATERMAN, B S A , *Demonstrator in Chemistry*  
 G L JARVIS, B S A , *Demonstrator in Apiculture*  
 G E RAITHBY, B S A , *Demonstrator in Animal Husbandry*  
 H A SMALLFIELD, B S A , M S , *Demonstrator in Dairying*  
 FRANCIS McNALLY, B S , *Instructor in Normal Methods*  
 T J MCKINNEY, *Instructor in Dairying*  
 JEAN C BRADLEY, *Instructor in Laundry and Household Administration*  
 MARGARET REID, B H Ec , *Instructor in Household Management*  
 KATHLEEN K PEPLER, *Demonstrator in Physical Training (Macdonald Institute)*  
 R E BALCH, B S A , *Instructor in English*

## RESEARCH STAFF

## CHEMISTRY

- A L GIBSON, B S A , *Dairy Chemistry*  
S R CURZON, B S A , *Food Investigation*  
M ALICE PURDY, *Flour Testing*  
S WATERMAN, B S A , *Soil Investigation*  
C A CLINE, B S A , *Soil Investigation*

## FARM ECONOMICS

- H. W CLARK, B S A , *Assistant Director of Surveys*  
G W MICHAEL, B S A , *Chief Field Supervisor*

## ENUMERATORS

- W S ROWE  
W J FAIRWEATHER  
C W RILEY, B S A  
G H EDWARDS, B S A  
B HOODLESS, B S A

## FIELD HUSBANDRY

- A W MASON, B S A , *Assistant Experimentalist*  
A E WHITESIDE, *Plant Selection*

## HORTICULTURE

- C C EIDT, B S A

## POULTRY

- E S SNYDER, B S A , M S  
J F FRASER, B S A

## EXTENSION STAFF

- LIONEL STEVENSON, B S A , M S , *Director of Extension*  
J F FRANCIS, B S A , *Poultry Husbandry*  
V C LOWELL, B S A , *District Supervisor of Drainage*  
W P SHOREY, B S A , *District Supervisor of Drainage*  
F W PRESANT, B S A , *Assistant Vegetable Specialist*

## THE ONTARIO VETERINARY COLLEGE

In 1862, through the efforts of the late Hon Adam Fergusson of Woodhill and the late George Buckland, Professor of Agriculture in the University of Toronto, Professor Andrew Smith, a graduate of the Edinburgh Veterinary College, was appointed to give instruction in Veterinary Studies in the Province of Upper Canada. The Veterinary College thus established was later taken over by the Government of the Province of Ontario and affiliated with the University of Toronto, from which graduates of the College may receive the degree of Bachelor of Veterinary Science and Doctor of Veterinary Science. See Curriculum in Veterinary Science elsewhere in this volume.

## COLLEGE STAFF AND SUBJECTS TAUGHT, 1923-24

C D MCGILVRAY, M D V, D V Sc, *Contagious Diseases, Sanitary Service*  
 F TORRANCE, B A, D V Sc, *Physiology, Hygiene*  
 J N PRINGLE, M R C V S, B V Sc, *Sporadic Diseases, Physiology*  
 R A MCINTOSH, M D V, *Obstetrics, Special Therapeutics*  
 W J R FOWLER, B V Sc, *Surgery, Materia Medica*  
 H D NELSON, D V Sc, *Anatomy*  
 F W SCHOFIELD, D V Sc, *Pathology, Parasitology*  
 H E BATT, B V Sc, *Histology, Meat Inspection*  
 R GWATKIN, D V Sc, *Bacteriology, Milk Hygiene*  
 F C GRENSIDE, V S, *Horsemanship*  
 J G HARVEY, B V Sc, *Cattle Diseases*  
 GEO DREW, *Jurisprudence*  
 R HARCOURT, B S A, *Ontario Agricultural College, Chemistry*  
 W TOOLE, B S A, *Ontario Agricultural College, Animal Husbandry*  
 J E HOWITT, M S A, *Ontario Agricultural College, Botany*  
 O J STEVENSON, M A, D P A E D, *Ontario Agricultural College, English and Public Speaking*  
 W C BLACKWOOD, B A Sc, *Ontario Agricultural College, Physics*  
 A LEITCH, B S A, *Civics, Economics*



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## APPENDIX

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## REGISTER OF STUDENTS, 1923-1924

## FACULTY OF ARTS

## FIRST YEAR

C—University College, V—Victoria College, T—Trinity College,  
M—St Michael's College

Name	Home Address	Name	Home Address
C Abbott, Miss E B	Toronto	T Branion, H D	Dunnville
C Abidh, Miss S P	Trinidad, B W I	V Bravener, Miss M S	Whitby
C Adamson, A	Clarkson	C Breslin, Miss E	Toronto
V Addison, Miss M C	Toronto	V Briggs, Miss R M	Port Credit
C Aggett, Miss K	Toronto	C Bristol, J R W	Toronto
C Ainslie, G S	Comber	M Brophy, Miss J M	St Catharines
V Albright, H R	Toronto	V Broughton, Miss L M	Corbetton
C Allen, J F	Georgetown	C Brown, G E	Toronto
T Allen, W W R	Toronto	C Brown, Miss I A	Toronto
C Anderson, J M	Wilton Grove	V Bryant, L R	Guelph
C Anderson, Miss K E	Toronto	V Bryant, R V	Streetsville
V Andrew, Miss L I	Toronto	C Buchanan, N S	Toronto
C Arthur, Miss B R	Collingwood	C Bull, W F	Weston
C Ayler, Miss A B	Toronto	C Burgess, J L	Orono
C Aylesworth, G G E	Owen Sound	T Burgoyne, Miss L G	Grimsbey
T Ayre, H G M	Toronto	C Burnett, W W	Elora
V Baker, A B	Bigwood	T Burns, Miss H W	Oshawa
C Baker, Miss A	Chatham	C Burrige, Miss J	Victoria, B C
C Bale, Miss E G	Toronto	V Burrows, Miss I A	Toronto
V Bales, J H	Lansing	T Burwash, Miss P	Arnprior
C Barber, J R	Georgetown	V Butchart, W D	Meaford
C Barker, Miss H M	Toronto	C Butler, Miss M E	Penticton, B C
C Barker, R	Toronto	C Cain, Miss B M	Toronto
V Barley, W J	St Catharines	V Calder, Miss M M	Grimsbey
M Barthelmes, Miss K	Toronto	C Cameron, A G	Toronto
C Bartram, Miss V W	Toronto	C Campbell, Miss G V A	Toronto
V Bastedo, G M	Moose Jaw, Sask	C Campbell, J C A	St Catharines
C Beath, T	Oshawa	C Campbell, Miss M G	Perth
C Beattie, Miss E G	Barrie	C Carnegie, J A	Toronto
V Bechtel, Miss C M	Kitchener	M Carroll, Miss C H	Toronto
C Beckett, T R	Kemptville	M Cartan, F J	Toronto
T Bell, Miss C M A	Alliston	C Carter, Miss E M	Guelph
V Bell, W M	Ingersoll	V Carter, Miss H R	Picton
C Bensley, E H	Toronto	V Carver, Miss D E	Caledonia
C Best, R A	Cayuga	C Castell, A	Toronto
C Better, J	Toronto	V Caswell, Miss E C	Toronto
C Bird, W E	Hamilton	V Chapman, W M	Uxbridge
V Blarsdell, J L	Toronto	V Chappel, N T	Mineing
V Blakeman, H H	Stratford	C Charles, A F	Toronto
C Boake, Miss F E	Toronto	V Chown, A L	Toronto
C Boles, Miss K E	Simcoe	C Clark, Miss K J	Sarnia
C Bolsby, P J	Toronto	V Clarke, W F	Meaford
C Bonwick, Miss E F	Oshawa	V Clements, Miss F J	Milton
C Borland, Miss E M	Toronto	V Clements, J H	Elora
V Bowles, Miss E	Toronto	C Clubine, E E	Burford
C Bradburn, H I	Peterborough	T Coate, Miss M J	Chatham
M Bradley, Miss L M	Farellton, Que	C Cohn, M M	Toronto

Name	Home Address	Name	Home Address
T Coleman, Miss L E	Stoney Creek	C Emery, J A	Stratford
V Coles, L K	Woodstock	V Endicott, Miss D	Toronto
V Collier, H B	Toronto	C Evans, G S	Toronto
V Collins, J E	Trenton	C Evans, J F	Toronto
C Collet, Miss G. V	Cayuga	V Everett, Miss C	Toronto
C Comber, Miss D M	St G	V Everitt, Miss I H	Toronto
	Bobcaygeon	V Everson, R G	Oshawa
C Conn, J M	Sarnia	C Fairwell, C A	Toronto
V Cook, I D A	Simcoe	C Farquharson, D G	Black River, Jamaica
V Cooke, Miss E G	Wolsley, Sask	M Farrell, Miss E P	Niagara Falls
C Coon, H E	Peterborough	T Farrell, Miss L N	Toronto
V Cooper, Miss O L	Goderich	C Faulds, Miss L M	Toronto
V Corin, F	Toronto	C Favreau, Miss A P	Espanola
T Corrigan, Miss B M	H Toronto	V Fenn, Miss B E	Bracebridge
C Cosens, Miss E H	Toronto	V Ferguson, Miss E K	Elora
V Cosh, Miss A E	Bobcaygeon	C Ferguson, F A	Becton
C Coulter, Miss E	Toronto	C Fine, A	Toronto
C Cowan, Miss J A	Barrie	V Fisher, M C	Woodville
C Coyle, P A	Windsor	V Fleming, J P	Toronto
V Cragg, C E J	Kobe, Japan	C Fockler, E K	Newmarket
C Ciaw, W B	Feigus	T Forrest, Miss M M	Port Hope
C Ciech, Miss E I	Toronto	C Forsyth, J G	Toronto
T Cieggan, Miss M E	Deseronto	V Forsythe, B C	Uxbridge
M Cronin, Miss C A C	Toronto	V Foster, Miss C L	Waterloo
C Crozier, J K	Lethbridge, Alta	C Fraser, Miss F E H	Toronto
C Dale, Miss M R	St Mary's	C Fraser, G R	Lorne
C Dale, S H	Toronto	C Fraser, Miss J I	Pembroke
V Daly, F St L	London	C Fraser, R O	Hawkesbury
C Dandencau, Miss D B	Toronto	M Fiv, Miss E L	Niagara Falls
C Davidge, Miss A F	Toronto	C Gallagher, F O	Toronto
C Davis, B P	Newmarket	C Gardner, P A	Bobcaygeon
V Dawes, Miss R A	Toronto	V Garrett, Miss W E	Toronto
C Dayment, F R	Toronto	C Garrow, J T	Toronto
C de Beauregard, Miss E T	Toronto	T Gear, Miss W M	Orton
C Denton, F D	Niagara Falls	C Gibbons, Miss N C	Leamington
T de Pencier, M T	Kemptville	C Gibson, T H	Toronto
V Dies, Miss D M	Shannonville	M Giroux, W A	Peterborough
V Dinsmore, K M	Toronto	V Givins, W M	Regina, Sask
T Dixon, Miss C O L	Brantford	C Glaister, Miss D	Wellesley
C Doan, Miss O H	Toronto	C Godwin, E T	Toronto
M Donley, H J	Toronto	C Goforth, J F	Toronto
M Donohue, W A	Sarnia	C Goldenberg, R	Toronto
C Dowkes, W F	Owen Sound	C Goldhar, S N	Toronto
V Down, H J	Oakland	C Golding, Miss A N	Toronto
V Doxsee, F A C	Regina, Sask	C Goldstein, J	Toronto
V Doyle, A M	Toronto	C Gollom, J	Toronto
C Drummond, Miss M E	Toronto	C Gooch, T H	Toronto
V Drummond, O L	Toronto	C Gordon, Miss H M E	Niagara Falls
V Dufton, J F	Stratford		
M Duggan, E T	Toronto	C Goulding, Miss G I	Toronto
C Dunkley, J R	Toronto	C Gourlay, D E	Toronto
C Eakin, J S	Toronto	C Graham, A R	Ottawa
T Eastwood, Miss E M	Peterborough	V Graham, Miss M N	Victoria, B C
C Edmison, Miss H L	Toronto	C Granatstein, S J	Toronto
C Elliott, R A	Toronto	C Green, H P	Toronto
V Emerson, L P	Toronto		



Name	Home Address	Name	Home Address
C Griffin, G M	Toronto	C Joyce, A L	Brantford
C Griffiths, Miss P M	Toronto	C Kay, Miss H A R	Stratford
C Grosart, A H G	Toronto	C Keast, Miss A M	Toronto
C Grossberg, B	Kincardine	C Keast, T P	Toronto
C Gunn, Miss L J	Toronto	V Keffer, J W	Hespeler
V Hall, Miss A M	Burlington	C Kenny, W E	Orillia
V Haller, M C	Hagersville	C Kergin, F G	Prince Rupert, B C
C Halls, D J	Toronto	C Kergin, W S	Prince Rupert, B C
M Hamilton, Miss M M	Lindsay	M Kerr, E A	Toronto
C Hamly, D H	Toronto	M Kerr, Miss H M	Toronto
C Harding, Miss D F	Toronto	V Keir, J G	Toronto
V Hare, R R	Milton	C Kertland, D M	Toronto
C Harlow, Miss E B	Toronto	C Ketchum, K G B	Toronto
C Harris, C G	Niagara Falls	M Keyes, V M	Stratford
T Harris, Miss I G	Oxford Mills	C King, C M	Toronto
C Harris, R A	Toronto	C King, F G	Cayuga
M Harrison, Miss R M	Tamworth	V Kingston, Miss D A	Campbellford
C Harrison, Miss V V	St Catharines	C Kinnear, H W	Toronto
C Harvie, F H	Midland	C Klotz, Miss J	Ottawa
V Hawkins, R H	Port Hope	C Knott, G A	Toronto
V Hendershot, H B	Kingsville	C Knox, Miss A M D	Kelowna, B C
C Heron, Miss D A	Ottawa	C Lalor, G C	Toronto
C Hershey, Miss D A	Toronto	V Lamont, Miss K J	Regina, Sask
C Hessin, E J	Toronto	C Langstaff, Miss H C	Richmond Hill
V Hewitt, A G	Kitchener	T Larsen, Miss N M	Katrine Sta
C Hicks, Miss B A	Brantford	C Lawson, L B	Toronto
C Hickson, E E	Toronto	C Laxton, Miss M E	Toronto
C Hill, Miss I C	Hartney, Man	C Lazaresco, Miss L R	Toronto
C Hiltz, Miss M R	Toronto	T Lazier, J E	Hamilton
V Hodgins, Miss D B	Moosomin, Sask	C Lea, A G	Toronto
C Hood, J G	Stayner		
C Hornc, A R	Port Credit	M*Leacock, Miss A M V	Toronto
C Horning, E L	Toronto	M Lee, Miss A F	Toronto
C Houser, Miss E G	Toronto	C Leizner, H	Toronto
V Houston, J W	Toronto	V Lent, E E	Toronto
V Howard, Miss M S	Whitby	C Levi, E A	Toronto
C Hubbell, Miss C A	Smiths Falls	C Levy, Miss B	Toronto
C Humphries, Miss M A	Warton	V Liddy, J E	Orangeville
C Hunt, Miss M F M	Carp	C Lipshitz, Miss D H	Toronto
V Hurlburt, Miss H G	Barrie	C Livingstone, J G	Welland
C Hutchison, F F	Toronto	C Lochead, Miss M	Guelph
V Hutchison, Miss M B	Bracebridge	V Lochrie, Miss C D	Toronto
C Innes, R T L	Simcoe	V Lockwood, W W	Victoria, B C
V Ireland, C H	Mansfield	C Lone, J	Toronto
T Irvine, Miss H G	Orangeville	C Lorenzen, F	St Catharines
C Jackson, A J	Toronto	C Lount, H F C	Toronto
V Jackson, Miss M G	Cardinal	C Low, T St C	Toronto
C Jennison, G L	Toronto	V Luke, Miss E F	Toronto
T Jermya, Miss E L	Whitby	C Lyon, Miss D	Toronto
C Johnston, H G	Ottawa	C Lyon, F M	Toronto
V Johnston, Miss M I	Toronto	M McAlpine, J C	Marysville
C Jones, F M C	Toronto	C McBride, Miss L E	Smiths Falls
C Jones, Miss M E	Toronto	V McCallum, J E	Regina, Sask
C Jordan, Miss A K	Toronto	C McConnell, Miss C	Toronto

\*Michaelmas Term

†Dispensation for Session

Name	Home Address	Name	Home Address
C McCormick, Miss D I	Pembroke	V Marshall, Miss F A	Toronto
C McCrary, Miss A M	Alexandria, Va	V Mason, L M C	Bowmanville
T McCullagh, D G	Cobourg	V Massey, Miss R E	Kingsville
M McCullough, J F	Sudbury	T Matheson, Miss G J	Ottawa
C McCutcheon, J W	Toronto	C Matthews, F B	Toronto
C McCutcheon, W L	Brussels	C Menzies, Miss B E	Toronto
C*Macdonald, Miss D C	Richmond Hill	V Miller, G W	Markham
C McDonald, Miss G E	Toronto	C Mills, Miss E M	Toronto
C McDougall, Miss J S	Toronto	V Mills, Miss M A	Merrickville
C McEvoy, Miss D R	Toronto	V Millsap, Miss J E	Creemore
M McGill, J M	Owen Sound	V Milne, Miss M A D	North Bay
V McKay, B M	Toronto	C Minsky, J	Toronto
V McKay, Miss D J	Bracebridge	V Misener, C C	Welland
C McKay, Miss M E	Toronto	C Moffatt, Miss W M	Toronto
C Mackenzie, Miss D E	Kincardine	C Monds, Miss H C	Petrolia
C McKenzie, Miss R J	Toronto	T Monteith, J W	Stratford
C McKie, G J	Simcoe	V Mooney, Miss F C E	Regina, Sask
V McKinley, Miss H G	Toronto	C Moore, Miss F M	Toronto
C McKnight, D H	Toronto	V Moore, Miss J	Uxbridge
C MacKnight, Miss M L	Barrie	V Moore, J B	Toronto
C McLaughlin, Miss A J	Hamilton	C Morrison, C R	Toronto
V*McLaughlin, Miss E K	Oshawa	V Morrow, B S	Toronto
C McLean, A C	Wallaceburg	C Muir, J M	St Marys
C McLean, J L W	Port Perry	C Muir, P	Toronto
C MacLennan, K R	Dundas	C Murphy, J P	Toronto
C McMahon, F E	Toronto	C Murray, Miss F B	Toronto
C*McMahon, Miss K M	Port Hope	V Murray, Miss J A	Collingwood
C MacMillan, C	Lucknow	C Murray, Miss M I S	Toronto
V McMullen, Miss A F	Toronto	V Murray, Miss M M	Collingwood
V McMullen, H F	Toronto	C Murray, N L	Toronto
C McNarn, H D	Toronto	C Myers, C R	Toronto
C McNaughton, Miss M I	Orangeville	V Nicholas, M A	Toronto
V McNeill, Miss J H	Bracebridge	V Nicol, Miss A J	Madoc
C McQueen, Miss V E M	Tillsonburg	C Nishikawa, F S	Japan
M McRae, D A	Dalhousie Sta, Que	C Nixon, Miss M L	St John, N B
C MacTaggart, Miss H I	Toronto	V Norman, W H. N	Toronto
T McTavish, Miss M C	Windsor	V Nourse, Miss D E	Toronto
V Mabee, B S	Gananoque	M O'Brien, Miss A	Toronto
C Madorsky, Miss B	Toronto	M O'Brien, Miss F T	Erindale
V Magee, R K	Brampton	M O'Connor, Miss D M	Sault Ste Marie
V Mahoney, H J	Guelph	V Ogden, Miss C I	Unionville
C Malcolmson, Miss M L	Barrie	M O'Keefe, C	Vernon, B C
M Mallon, J F	Toronto	C O'Reilly, Miss F H	Toronto
C Mang, H P	Edenwold, Sask	C Page, Miss D R	Toronto
C Mann, C C, Jr	Toronto	C Pallett, Miss G	Islington
V Mann, W E	Brantford	C Park, Miss A G	Toronto
V Marchant, W T	Toronto	C Park, W	Toronto
V Marriott, Miss R H	St Marys	T Parker, Miss A V	Bowmanville
C Marrs, L E	Toronto	T Parker, Miss N	New York, N Y
		C Parks, A E	Toronto
		C Parmenter, M D	Toronto
		C Peachey, C A	Toronto
		V Peart, Miss L C	St Marys

\*Michaelmas Term

†Dispensation for Session

Name	Home Address	Name	Home Address
C Pierdon, Miss I H	Toronto	M Shcchan, Miss M R	Springfield, Mass
C Plaunt, A B	Ottawa	M Sheeran, Miss M	Marysville
V Plewes, Miss L W	Toronto	C Sherman, H H	Toronto
V Plunkett, T H	Meaford	M Shuman, P G	Toronto
V Potter, Miss E V	Toronto	C Shute, W E	Windsor
M Power, G C	Grand Falls, Nfld	C Siegel, Miss R	Toronto
V Price, C B	Newburgh	V Sifton, S C	Moose Jaw, Sask
C Procter, Miss L R	Toronto	C Silvertown, S	Toronto
V Pugh, Miss I E	Whitevale	C Singer, L A	Toronto
C Quarter, S A	Toronto	C Singlehurst, J II	Oakville
C Quinlan, Miss A J C	Barrie	C Smith, B L	Toronto
M Quinlan, M J	Trout Creek	C Smith, E H	St Catharines
C Radcliffe, N D	Toronto	T Smith, G E F	Hamilton
T Ralfe, G W	Toronto	C Smith, Miss G A	Lansing
C Ramage, H A	Durham	C Smith, J F	Toronto
C Ramsden, Miss M C	Grimsby	C Smith, Miss M R	Lansing
C Raney, A S	Orillia	C Smith, T C H	Alliston
C Ratcliff, Miss R B	Toronto	T Smith, W L	Kingsville
T Reid, E M	Toronto	V Smithman, A J	Jarvis
V Reid, Miss J A	Toronto	C Smithson, A E	Weston
C Remick, R B	Toronto	V Sneyd, A H	Welland
V Risdon, F G	Granton	V Snyder, G A	Niagara Falls
C Risk, J C	Toronto	C Snyder, K	St Jacobs
V Rittenhouse, Miss A	Vineland Sta	C Somerville, C R, Jr	London
M Rivers, Miss E A	Bogart	C Somerville, Miss M	Orono
C Robertson, F W	Toronto	V Souter, Miss I	Brucefield
C Robertson, O A	Ida	V Soward, H G	Toronto
C Robertson, S	Milton	V Sparham, C E	Caledonia
C Robinson, G deB	Toronto	C Spence, K D M	Toronto
V Robinson, Miss G O	Guelph	C Stacey, C P	Toronto
V Robinson, Miss M	New Toronto	C Standeven, Miss T J	St Marys
M Roche, N	Toronto	C Steinhauer, H	Toronto
C Roos, K O	Toronto	V Steiss, E A	Heidelberg
C Root, Miss F M	Dunnville	V Sterling, J E W	Cedar Springs
C Ross, Miss A H	Barrie	C Stevenson, Miss N W	Toronto
C Ross, G A	Carleton Place	C Stevenson, Miss S J	Toronto
C Rowan, A H	Toronto	C Stewart, Miss B E	Norwich
C Ruddock, J Y	Toronto	V Stewart, Miss J	Toronto
C Rugg, Miss M E	Toronto	C Stewart, J H	Springfield
C Samuels, L S	Toronto	C Stewart, Miss M E	Seaforth
C Samuels, Miss M M	Toronto	C Stewart, M T	Wingham
C Sanderson, D E	Ida	C Stinson, Miss F M	Toronto
C Satterly, J	Toronto	C Sturrett, Miss M M	Sarnia
C Saunders, Miss J E	Weston	V St John, J S	Uxbridge
V Saywell, H A	Toronto	C Stollery, C W	Toronto
C Scandiffio, N F	Toronto	C Stollery, F H	Toronto
C Scott, G W	Toronto	V Stone, Miss D C	Toronto
C Scott, Miss L I	Toronto	C Sugar, L	Toronto
M Servais, C J	Port Arthur	T Sugden, F J	Paris
C Sewell, W S	Toronto	V Sullivan, Miss F E	Stayner
C Shapiro, I	Toronto	C Sullivan, G F	St Catharines
C Sharpe, H L	Orillia	M Sullivan, P B	Toronto
V Shaver, Miss A M	Ancaster	C Sutherland, Miss F H	Petrolia
V Shaver, Miss D M	Brockville	C Sutherland, Miss J N	Petrolia
C Shaw, Miss M M	Toronto	C Swartz, H M	Toronto

Name	Home Address	Name	Home Address
V Taber, R J	Athens	V Walton, Miss M E	Toronto
M*Tallon, C V	Cornwall	C Waring, Miss E A	Toronto
V Taylor, A R	Woodstock	C Watson, Miss E H	Thornhill
C Taylor, M C	Toronto	V Wattie, Miss D E	Bracebridge
C Taylor, N A	Toronto	C Weil, Miss S	Toronto
C Teska, M E	Toronto	C Weir, Miss N V	Toronto
V Thom, S D	Regina, Sask	C West, J K	Dunnville
M Thompson, G J	Teeswater	C†Weston, Miss A F	Toronto
C Thompson, Miss M A J	Havelock	V White, Miss H I	Toronto
C Thompson, Miss M E	Toronto	C Wicks, C A	Mount Dennis
V Thompson, W F	Toronto	C Wickware, Miss H M	Smiths Falls
C*Thomson, J D	Campbellford	M Wiley, Miss N	Weston
C Thorpe, Miss M O	Toronto	V Wilkinson, W A	Toronto
V Tidman, Miss V M	Toronto	C Willard, Miss E A	Toronto
V Tow, Miss M C	Toronto	V Williams, A. F	Sunderland
C Townsend, H E	Hamilton	C Williams, Miss N O	Toronto
C Trumble, G F	Toronto	C Willits, Miss R E	Kelowna, B C
V Tuck, Miss H E	Oakville	C Willmott, Miss M E	Toronto
C Tucker, Miss L. E	Toronto	V Willmott, R O	Strathroy
C Tudhope, Miss L F	Orillia	T Wills, Miss N I	Jordan
C Turnbull, A R	Seaforth	V Wilson, D J	Toronto
C Turnbull, Miss M I	Galt	V Wilson, Miss E B	Haileybury
T Turnbull, R	Niagara Falls, N Y	M Wilson, J L	Toronto
C Uphall, W G	Toronto	C Wishart, F O	Paris
C Varty, J A	Markdale	C Wishart, G A	Paris
V Vernon, E G	Uxbridge	V Wonnacott, H G E	Mt Brydges
C Vetter, Miss V C	Toronto	T Woods, W G B	Listowel
C Waddell, W L M	Ballinafad	C Worsley, C P	Toronto
C Waines, Miss M M	Toronto	C Wright, Miss E C	Chesley
C Waldie, J K	Toronto	M Young, Miss E	Ennismore
C Walker, R B	Toronto	C Young, G W	Toronto

## SUMMARY—FIRST YEAR

University College	345
Victoria College	162
Trinity College	36
St Michael's College	41
	—
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## SECOND YEAR

C—University College, V—Victoria College, T—Trinity College,  
M—St Michael's College

Name	Home Address	Name	Home Address
V Adams, Miss M E H	Toronto	C Anderson, Miss J I C	Toronto
V Aikens, Miss W G	Grimsby East	C Anderson, Miss M D	Port Dover
C Alderson, G K D	Ingersoll	C Anderson, Miss R M	Toronto
C Allan, H M	Stratford	C Anderson, W M	Toronto
C Allen, K E	St Catharines	V Anglin, Miss R W	Toronto
V Allen, Miss L H	Toronto	C Appelbe, Miss M R	Toronto
C Allin, Miss E J	Blackwater	C Armstrong, P T	Toronto
M Andary, Miss H C	Sault Ste Marie, Mich	V Armstrong, R H	Orono
		C Arnold, Miss K J	Toronto

\* Michaelmas Term

† Dispensation for Michaelmas Term

Name	Home Address	Name	Home Address
C Atkinson, J S	Toronto	V Butcher, Miss D E	Toronto
C Aziz, S A	Toronto	C Caldwell, Miss J K	Toronto
V Bailey, Miss M A M	Lakefield	M Callaghan, R F	Hamilton
C Bain, Miss B	Toronto	V Campbell, C M	Owen Sound
V Balkwill, Miss M E	Kingsville	T Campbell, D H	Toronto
C Ball, Miss K L	Toronto	T Campbell, Miss J K	Thorold
V Bannerman, G F	Toronto	C Campbell, Miss M D	Ripley
V Barker, Miss M G	St Catharines	C Campbell, N M	Toronto
C Barron, F A	Port Dover	M Carroll, Miss M E	Hamilton
C Bayne, R A	Newbury	C Carroll, W R	Iona Sta
V Baxter, C A	Thamesville	T Catchpole, D S	Toronto
V Beal, Miss I C	Toronto	C Catzman, F	Toronto
V Beck, J S H	Brampton	T Chaffe, R S S	Waterdown
V Becker, R P	Toronto	T Charleson, E H	Ottawa
M Bench, Miss M	Toronto	C Chesnut, Miss H I	St Catharines
V Bennett, Miss S M	Streetsville	V Chisholm, R F	Toronto
C Benson, N	Toronto	C Ciglen, S	Meaford
V Bernhardt, K S	Walkerville	V Clarke, Miss D M	Trenton
M Berrigan, T J	Pembroke	C Clark, Miss M M	Toronto
V Berry, N T	Caledonia	C Clayton, L H	Ottawa
V Bewell, J F A	Toronto	M Coghlan, D H	Ft William
C Biggar, G F	Toronto	C Colbert, Miss E L	Brampton
T Bissett, H M	Windsor, N S	C Cole, A F W	New Liskeard
C Black, Miss M A B	Almonte	C Coleman, E	Hamilton
V Blair, H K	North Gower	C Conn, Miss J B	Sarnia
M Blake, Miss P M	Toronto	C Cook, G N	Toronto
M Bolan, M J	Toronto	M Cooney, Miss G	St Catharines
C Boles, T Z	Simcoe	C Copus, Miss M A	Stratford
C Borsook, L	Toronto	T Costigan, E H	Toronto
T Bradley, J H	Niagara Falls	M Coughlin, Miss M W	Toronto
C Bradshaw, E J	Port Credit	M Coumans, Miss C	Chepstow
C Bradshaw, Miss H C	Toronto	V*Cowen, Miss L W	Hamilton
C Brandon, Miss D H	Toronto	C Cox, G O	Palmerston
C Brandon, W E	Toronto	C Craw, Miss M W	Toronto
C Bray, G M	Kitchener	V Creighton, Miss M I	Toronto
V Breese, W S W	Chatsworth	C Crighton, H N	Toronto
V Brethen, Miss R K	Norwood	V Crosby, H M	Uxbridge
T Brett, Miss E B	Rosemont	M Crummev, Miss M E	Toronto
V Brett, Miss H O	Steenburg	V Cummings, Miss J M L	Toronto
V Brullinger, H R	Toronto	C Cuthbertson, F W	Toronto
C Bronstein, Miss R G	Toronto	V Daly, Miss B M	London
V Brown, Miss E A T	Kingville	T Daly, E A	London
C Brown, E K	Toronto	C Daly, M A	Napanee
T Brown, Miss M E	Napanee	C Dalziel, Miss J M	Woodbridge
C Brown, O	Toronto	C Davidson, N E	Cobourg
V Bruce, Miss L S B	Stouffville	T Davis, Miss A M	Hamilton
C Bullen, Miss V E	Toronto	C Davis, K F	Toronto
M Burcher, Miss M L	Toronto	C Davis, W J	Poplar
C Burford, Miss H K	Toronto	T Daw, W H	Hamilton
C Burgess, E H	Norwood	V Deacon, K E	Toronto
C Burgess, F A	Toronto	M Dell, Miss G A	Hamilton
C Burk, J D	Toronto	C Detweiler, Miss I	Sault Ste Marie
V Burns, Miss K C	Toronto	T Dick, Miss M E	Milton
C Burton, Miss D F	Toronto	C Dickson, Miss J S	Niagara Falls

\*Michaelmas Term

Name	Home Address	Name	Home Address
C Digby, G S	Toronto	C Gibb, W K	Drayton
V Dilworth, E B	Toronto	C Gibbs, F H	Ramsgate, Eng
V Dingwall, R M	Priceville	C Gibson, Miss J I	Toronto
C Doherty, B W	Toronto	V Gibson, R E	Tillsonburg
C Dole, Miss D	Toronto	C Goldie, J L	Guelph
C Donnell, A A	Galt	V Goodson, J E	Sarnia
C Donnelly, A J	Pinkerton	M Gormally, Miss C	Chicago, Ill
C Douglas, J F R	Toronto	C Graburn, A L	Toronto
C Dow, Miss R M	Toronto	C Graham, Miss G R	Belleville
M Doyle, Miss C A	Dundas	V Graham, J E	Toronto
V Drewry, Miss N O	Chatham	V Graham, W H	St Marys
C Duff, D C B	Toronto	C Grant, D H	Toronto
V Duff, G L	Hamilton	C Gray, Miss M E	Toronto
M Duffy, Miss G N	Hamilton	V Graydon, Miss A E	Toronto
M Duggan, C J	Ottawa	C Green, W H W	Toronto
M Duggan, Miss L C	Toronto	C Greenizen, Miss H M	Petrolia
M Dwyer, Miss M	Toronto	C Guer, J C	Owen Sound
V Eadie, Miss F P	Scotland	V Griffin, Miss E	Cannington
C Earle, W E	Toronto	C Gringorten, I M	Toronto
V Elliott, Miss D E	Toronto	M Haffey, H J	Welland
V Ellis, Miss A M M	Gananoque	V Haines, Miss R W	Sharon
V Farley, Miss E E	Trenton	C Haley, Miss M E	Toronto
V Fawcett, D F	Port Colborne	C Hall, A C	Oshawa
V Fennell, V	Havelock	V Hall, C H	Swansea
C†Ferguson, Miss L E,	Mount Cobb, Pa	C Hall, H G	Toronto
V Ferguson, W M	Toronto	V Hall, N H	Guelph
C Fidler, Miss M	Toronto	C Halliday, D M	Chesley
V Fife, Miss G	Toronto	V Hames, G H	Oxbow, Sask
C Findlay, G E	Carleton Place	C Hamilton, Miss A M B	Toronto
C Fineman, L	Toronto	M Hamilton, B J	Owen Sound
C Finkelman, J	Hamilton	V Hamilton, K L	Londesborough
C Finlay, E B	Norwood	V Hanna, Miss M W	Port Carling
M Flahiff, G B	Paris	M Hannah, W H	Hamilton
V Fletcher, Miss P	Toronto	V Hanson, Miss N L	Dixon Corners
V Fletcher, W G	Toronto	C Hardy, A S	Brockville
M Foley, Miss M E	Toronto	M Harrigan, B W	Hamilton
V Forward, Miss D F	Ottawa	V Harris, C	Brantford
C Francis, I E	Hamilton	V Harris, H E	Hamilton
C Francis, L L	Toronto	C Harris, L J	Toronto
T Frank, C J	Toronto	C Harris, Miss M C	Port Perry
C Fraser, Miss C C	Toronto	C Harris, Miss R A	Toronto
C Fraser, C C	Glen Sandfield	V Harrison, R B	Lakefield
C Fraser, C G	Toronto	C Hartwick, Miss M	Toronto
V Fulton, R B	Lindsay	C Hawke, E E	Toronto
C Galbraith, Miss M	Milton	C Hawley, Miss O L	Toronto
C Galvin, Miss N M	Toronto	C Hayhurst, W P	Toronto
C Gardiner, Miss D J	Cornwall	V Hazlewood, Miss R M	Grimsby
M*Garney, Miss G M	Toronto	C Helper, Miss M	Toronto
C Garrett, D R	Toronto	V Henderson, Miss M M	Waterloo
C Garvin, J B	Sydenham	V Hendry, H A	Dundas
C Gemmill, J S	Toronto	C Heron, Miss F C	Ottawa
M Gentles, Miss A J	Parry Sound	C Hewlett, E M	West Hill
C Gerrie, W	Brantford	C Hillary, A T	Toronto
		V Hilliard, Miss G M	Waterloo

\*Michaelmas Term

†Dispensation for Michaelmas Term

Name	Home Address	Name	Home Address
V Hipwell, Miss A P	Alliston	C Lea, C A	Toronto
T Hird, Miss M G	St Catharines	C Lee, E P	Toronto
C Hodges, Miss W	Dundas	T Lee, Miss M J	Goderich
C Hodgetts, Miss A M	Clarkson	C Legge, Miss M I	Toronto
C Hoffman, Miss E	Toronto	V Leigh, D M	Greenwood
C Hogg, F S	Preston	V Lewis, Miss M D	Smiths Falls
V Hollinrake, A F	Hamilton	V Lambert, W H	Toronto
V Honey, Miss M E	Lynden	C Lines, T H	Toronto
V Horton, Miss M E	Toronto	C Lockie, Miss I M	Zephyr
V Horwood, W P	Toronto	C Logie, Miss J D	Paris
V Hubbell, Miss F G	Smiths Falls	C Lowden, J A	Toronto
V Hubbert, Miss R E	Toronto	T Luxton, Miss A W	Victoria, B C
C Hudson, Miss E S	Preston	M Lyons, W J	Ottawa
C Huff, Miss D M	Peterborough	C MacArthur, W G	Stayner
V Hughson, Miss M	Hamilton	M McCarthy, Miss E M	Windsor
C Hunter, Miss L H	Toronto	M McCarthy, Miss H	Dixie
C Ironside, Miss B H	Thedford	C McConkey, N R	Stratford
V Irving, J A	Drumbo	C McCready, Miss M S	Toronto
V Irwin, Miss A W	Moose Jaw, Sask	V McCutcheon, M W	Toronto
V Irwin, Miss H M	Campbellford	V McDonald, C I	Toronto
C Iscovitz, A	Toronto	C Macdonald, J K	Toronto
T Ives, L M	Belleville	C McDonald, Miss M C M	Sutton West
V Jackson, Miss E	Toronto	C Macdonald, Miss M J	Acton
C Jackson, Miss I G	Toronto	C McDougall, D J	Toronto
V Jameson, Miss L	Toronto	C McEachern, D L	Toronto
T Janes, H	Orillia	C McElroy, Miss E L	Ottawa
T Jennings, W B	Penetanguishene	M McEnaney, V X	Toronto
C Johnson, Miss K	Toronto	C McFarlane, N	Hamilton
C Johnston, Miss H G	Toronto	C McFeeters, Miss D I	Toronto
C Johnston, M	Collingwood	T MacGill, Miss H G	Vancouver, B C
C Johnston, R W S	Toronto	C MacGillivray, J R	Guelph
C Jones, W	Toronto	C McIntosh, Miss E M	St Catharines
M Kane, J P	Vancouver, B C	T McIntyre, Miss U M	Grand Valley
C Kaplan, M	Toronto	V McJannet, Miss E D	Gravenhurst
C Karn, Miss M T	Woodstock	C McKay, Miss J E	Port Arthur
C Keighley, G L	Pembroke	C McKeever, Miss B M	Ottawa
C Kells, Miss D G	Toronto	C McKenzie, A	Galt
M Kelly, J F	Chatsworth	V McKenzie, D W	Major, Sask
C Kendell, G D F	Dundalk	M McKeon, J E	Windsor
M Kernahan, Miss H M	Toronto	C McLaughlin, Miss E R	Toronto
C Kernohan, Miss D A S	Toronto	C MacLean, Miss S M	Toronto
V Kincaide, Miss F M	Unionville	C MacLellan, Miss M J	Claremont
C King, B B	Toronto	M McManamy, J P	Thorold
T Kinnear, Miss M H	Oshawa	M McManamy, T V	Thorold
V Kirkland, Miss J	Hamilton	C McMullen, Miss G C	Midland
C Knowles, Miss B W	Sarnia	C McNabb, Miss A E	Belmont
V Knox, Miss M E	Orono	V MacPhee, Miss F W	New York City, N Y
C Krug, C A	Chesley		
C Laborde, Miss M C	Brantford		
V Laudman, Miss M E	Barrie		
V Larkle, A E	Walkerville		
V Lavell, Miss M M	Toronto		
C Lavine, A	Toronto		
C Law, C A G	Toronto		

†Dispensation for Michaelmas Term

Name	Home Address	Name	Home Address
C Macpherson, A G	Orangeville	M O'Leary, M N	Toronto
C MacRostie, Miss A. C	Brampton	C Orloff, H	Toronto
V Maas, Miss D	Toronto	C Orr, Miss E J	Toronto
C Mackie, T	Toronto	V Outwater, Miss M	Mimico Beach
C Malco'm, Miss J L C	St George	C Page, R R H	Toronto
V Manuel, J	Sault Ste Marie	C Pallett, Miss S B	Islington
C Martin, Miss A M	Chatham	T Palmer, C N	Charlottetown, P E I
M Martin, B J	Toronto	C Pantazy, H	Toronto
T Martin, F J	Milton	V Parker, Miss J A	Humberside
T Martin, Miss M M	Milton	V Partridge, Miss E E	London
C Martyn, Miss M M	Ripley	C Partridge, Miss O M	Guelph
V Mathers, G S	Weyburn, Sask	V Patterson, C S	Toronto
C Mathuson, R S	Fort William	C Patterson, J G	Ottawa
C Matthews, Miss H	Weston	C Pattison, Miss I E	Toronto
V Medcalf, L C	Toronto	C Payne, J D	Welland
C Meek, Miss E R	St Thomas	V Peacock, E R	Lansing
C Meretsky, M	Windsor	C Pepper, A E	Prescott
C Messervy, R B	Charlottetown, P E I	V Perkin, L L	Toronto
C Michalson, Miss E	Toronto	C Perrie, D K	Wingham
M Michell, Miss V	Toronto	C Perrott, Miss L S	Alliston
V Middleton, A H	Toronto	V Perry, A E	Niagara Falls, N Y
C Mills, W J P	Toronto	M Phelan, Miss M J	Guelph
C Milne, J E	Hamilton	Vt Philp, W R	Colborne
C Milne, W S	Toronto	C Pidgeon, A L	Toronto
C Mitchell, Miss A L	Drumbo	V Pinder, Miss M M	Arthur
V Mitchell, Miss E G	St Marys	C Plaxton, H J	Toronto
C Mitchell, G C	Flesherton	C Pole, E A	Hot Springs, Va
V Mitchell, J H	Toronto	T Prewer, Miss A E	Chapleau
V Mitchell, Miss P S	Oakville	T Pringle, C C D	Prescott
C Mitchell, R C H	Hamilton	C Pritchard, A L	Toronto
C Monk, Miss A M	Ottawa	C Procter, A E	Toronto
T Moore, Miss M H	Toronto	C Purvis, C J	Essex
V Morrison, Miss E E	Petrolia	C Pusitz, M	Toronto
T Morrison, W K	Richwood	V Pyne, C E	Toronto
C Morrow, Miss D B	Toronto	M Quinlan, Miss G J	Port Hope
C Moulton, C A	St John's, Nfld	C Rabinowitch, J	Toronto
C Mowat, Miss J I	Acton	C Rabow, M	Toronto
C Mowat, Miss M C	Acton	C Rae, Miss C M	Toronto
V Munro, Miss H J	Iroquois	C Rankin, W M	Toronto
C Murray, J R	Toronto	C Rawson, D S	Goodwood
M Murrode, Miss M	Toronto	C Rawson, G H	Toronto
C Nanton, P C	Winnipeg, Man	V Reid, Miss H M	Belleville
C Needler, A W H	Toronto	C Ritchie, Miss J H	Toronto
C Needler, Miss W E	Toronto	C Robertson, W H	Toronto
M Nelligan, Miss E M	Toronto	C Robinette, J J	Toronto
C Nesbitt, Miss C L A	Toronto	C Robinson, W E	Toronto
C Nesbitt, W R	Toronto	C Rogers, K H	Winnipeg, Man
C Ness, Miss M E	Ottawa	C Roos, Miss H C	Waterloo
C Nettleton, Miss W	Toronto	C Roos, Miss K A	Kitchener
C Newby, M T	Toronto	C Ross, C J F	Toronto
M Neylan, F E	Midland	C Ross, Miss D E	Brussels
M Noonan, J	Mt Forest	C Rossman, I M	Toronto
V Oaks, Miss I M	Preston	C Rotenberg, Miss H	Toronto
M O'Grady, Miss R	Toronto	C Rotenberg, Miss R	Toronto
		C Roth, M	Toronto

†Dispensation for Michaelmas Term

†Dispensation for Session



Name	Home Address	Name	Home Address
M Ruth, F S	Toronto	C Taube, L	Toronto
C Sadowski, Miss E	Toronto	V Taylor, Miss A	Toronto
V Sandy, Miss D A	Omemee	C Taylor, H M	Bracebridge
V Sayles, Miss P	Toronto	T Taylor, T H	Hamilton
C Schon, W B	Halifax, N S	C Taylor, W S	Toronto
C Scott, A C	Toronto	C Teskey, Miss M	Oakville
V Scott, Miss M M	Ingersoll	C Thompson, A C	Toronto
C Scott, Miss O J	Toronto	T Thompson, Miss M E	Almonte
C Selby, D L	Simcoe	C Todd, N A	Hamilton
V Service, Miss E W	Toronto	C Toole, H A	Port Dover
V Service, Miss M J	Toronto	C Tory, J M	Toronto
M Sharpe, Miss M	Toronto	M Traynor, T R	Owen Sound
C Shaw, Miss E B	Guelph	V Tremaine, Miss A M	Toronto
C Shell, Miss L N M	Sault Ste Marie	C Turnbull, Miss J F	Galt
C Sher, D	Toronto	C Turner, H A	Fergus
C Shiell, Miss D N	Toronto	V Turner, Miss K	Toronto
C Shifrin, A	Toronto	V Turner, T R	Walkerville
M Silvester, Miss R A	Toronto	V Turner, W H	Toronto
C Sims, Miss E	Thistletown	C Turner, W R	Fergus
V Sinclair, J V	Barrie	C†ustin, Miss E A	Toronto
V Skinner, Miss A K	Simcoe	C Utting, Miss A K	Woodstock
V Smale, F E	Toronto	V Vanallen, Miss M M	Morrisburg
C Smart, Miss D A	Toronto	C VanEvery, W A T	Toronto
C Smart, J D	Brampton	C Vanstone, E N	Toronto
C Smeaton, Miss W H	Niagara Falls	C Vanstone, Miss M	Wingham
V Smith, Miss B E	Toronto	C Van Valkenburg, R	Toronto
C Smith, E G	Pembroke	C Verity, Miss H E	Brantford
V Smith, Miss E M	Toronto	C Walerstein, I	Toronto
C Smith, Miss H S	St Catharines	V Wales, Miss M E	Napanee
C Smith, L A	Uxbridge	V Walker, Miss E I	Barrie
V Smith, Miss R N	Moose Jaw, Sask	T Walker, R P	Toronto
T Smith, W F R	Fort Erie	C Ward, A B	Hamilton
C Soderman, Miss H M	Red Deer, Alta	C Waring, Miss M K	Toronto
C Speirs, N R	Toronto	C Warren, C M	Toronto
V Spencer, Miss M J	Vancouver, B C	C Watkins, J B C	Norval Sta
C Stanbury, W S	Exeter	M Watson, G D	Toronto
C Stark, H A	Toronto	C Watson, H G I	Stratford
V Starr, Miss M A E	Toronto	V Watson, K P	Sarnia
C Steele, Miss S M	Amherst, N S	C†Watt, H N	Palmerston
T Stewart, C D	Barrie	V Waugh, F D R	Toronto
C Stewart, Miss J C	Shawville, Que	T Waugh, W H	Niagara Falls
C Stirling, Miss J M	Agincourt	C Weber, J J	Toronto
C Stiver, Miss D A	Unionville	V Webster, S D L	Little Britain
M Story, Miss N C	Guelph	V Wegenast, Miss I S	Waterloo
M Sullivan, Miss D H	Toronto	C Weir, Miss N P	Toronto
M Sullivan, W C	Toronto	C Weiss, H J	Toronto
C Sutton, Miss E E	Toronto	V West, Miss E M	Almonte
T Swayne, W G H	Belleville	V Westman, Miss M E	Toronto
T Symons, D M	Toronto	M Wickett, Miss I J	Toronto
M Tallon, W F	Cornwall	C Wickware, Miss H S	Port Credit
C Taplin, Miss M A	Toronto	C Wilkins, Miss J	Toronto
		C Willard, R H	Hamilton
		V Williams, Miss K M	Woodstock
		V Williamson, F	Toronto

†Dispensation for Michaelmas Term

†Dispensation for Session

Name	Home Address	Name	Home Address
T Wilson, Miss A I	Chapleau	C Woods, J F	Toronto
V Wilson, Miss C E	Toronto	M Wright, Miss C M	Toronto
T Wilson, Miss D F N	Tilbury	C Wright, Miss D H	St Marys
V Wilson, E H	Toronto	C Wigley, Miss E M	Toronto
V Wilson, K R	Brantford	C Yphantis, G	Boston, Mass
V Wilson, Miss M J	Collingwood	T Young, Miss I	Midland
V Wood, B F	Prince Albert, Sask		

## SUMMARY—SECOND YEAR

University College	305
Victoria College	154
Trinity College	41
St Michael's College	59
	<hr/> 559

## THIRD YEAR

C—University College, V—Victoria College, T—Trinity College,  
M—St Michael's College

Name	Home Address	Name	Home Address
C Abbs, Miss M M	St Catharines	C Biady, J M	Toronto
V Anderson, Miss B A	Park Hill	C Breithaupt, W H	Kitchener
C Andrews, J	Toronto	T Brilinger, E	Chippawa
C Angus, E R	Stratford	V Brown, Miss H H B	St Mary's
C Angus, L R	Toronto	C Brown, N P H	Toronto
C Archibald, A E	Seaforth	C Brownell, R W	Toronto
C Armstrong, Miss E G	Toronto	C Brownson, C A	Belleville
V Atkey, R S	Owen Sound	V Brunt, W R	Hanover
C Ayer, H M	Toronto	C Burton, A S	Toronto
V Baker, Miss G A	Toronto	C Burton, Miss B E	Toronto
V Barber, Miss E I M	Burk's Falls	C Cahoon, N C	Bloomfield
C Barr, R B F	Toronto	V Caldwell, Miss I H	Curries
V Batchelor, Miss K A	Leamington	M Callaghan, M E	Toronto
C Bate, W B	Brampton	C Campbell, Miss M E	Kirkfield
C Beare, F W	Toronto	M Canary, W F	Hamilton
V Beecroft, E A	Whitby	V Carnaghan, Miss A H	Scaiborough
C Bell, C A	Walkerville	V Carnahan, Miss H A	Toronto
V Bennett, Miss G	Toronto	V Carruthers, Miss R H	Toronto
M Benoit, Miss E M	Petite Cote	C Carson, J A	Gamebridge
C Binning, R D	Moose Jaw, Sask	V Carswell, J A	Toronto
C Black, Miss G F	Toronto	C Chadwick, Miss M A	Toronto
C Black, R T	Truro, N S	C Charles, Miss G H	Toronto
C Blackburn, Miss M E	Toronto	C Charlesworth, Miss C C	Toronto
M Blanchard, Miss C	Lindsay	V Chisholm, W C	Toronto
C Blanchard, Miss H D	Toronto	C Clark, Miss E I	Toronto
C Blundall, Miss J B	Toronto	V Clarke, Miss N A	Trenton
C Bone, Miss M E	Toronto	C Clarke, O V	Toronto
T Bonnycastle, C H	Dauphin, Man	C Class, H E	Elmua
C Booth, A K	Toronto	V Cleaver, Miss H W	Burlington
M Booth, Miss L M	Toronto	T Clegg, Miss D M	Peterborough
C Bowman, A C	Toronto	M Cloutier, A L	North Bay
C Boyd, Miss M S R	Toronto	C Cochane, G B	Toronto
		M Coffee, Miss C M	Guelph

Name	Home Address	Name	Home Address
C Cohen, Miss E	Toronto	V Gilbert, F A	Fingal
V Cole, Miss I M	Hamilton	C Gilfillan, Miss V G	Orono
C Coleman, H R	St John, N B	C Glassey, C Q	Toronto
C Conboy, Miss V L	Toronto	C Goforth, W W	Honan, China
C Conn, K B	Toronto	C Govan, Miss M. K L	Welland
C Cook, Miss I M	Cheltenham	C Gowdy, D M	Limehouse
C Cook, Miss L E	Sarnia	V Grafton, H F P	Barrie
V Cooke, Miss M E	Cobourg	V Graham, W M	Toronto
C Copeland, P A	Toronto	C Grant, Miss M M	Toronto
M Costello, W. L	Ennismore	C Gray, Miss A P	Toronto
V Cotton, Miss L H	Colborne	C Gray, Miss G G	Coldwater
V Creighton, D G	Toronto	C Green, Miss E W	Toronto
M Cronin, Miss M F	Toronto	T Gregory, Miss E G	St Catharines
C Cronyn, T	London	V Grifth, E N T	Stratford
C Crossen, W V	Cobourg	C Groat, D L	Norwich
C Crozier, Miss A E	Port Perry	V Gundy, E M	Toronto
C Cuddy, D J	Amherstburg	C Guy, H L	Toronto
T Daly, Miss M I	Napanee	V Hagerman, Miss M A	Toronto
M Daly, M J	Fariellton, Que	C Haines, Miss F L	Wingham
V Davidson, Miss C I	Burlington	C Hamilton, A D F	Toronto
C Davidson, Miss M	E G	C Hampson, J	St Catharines
	Mimico Beach	C Hanes, C S	Willowdale
V Davis, Miss E A	St Catharines	V Hanley, H G	Milton
T deLom, T C B	Bruce Mines	M Hannan, Miss C	Toronto
C Denoon, Miss A I	Toronto	C Hargreaves, Miss F I	Toronto
V Devitt, Miss A B	Bowmanville	M Harkins, Miss M E	Toronto
C Dickler, P I	Toronto	C Harkness, Miss J W	Toronto
V*Dickson, W J B	Dundas	C Harris, Miss R C	Toronto
V Dingman, C D	Stratford	C Harris, W C	Toronto
C Dixon, R M	Peterborough	C Hart, E T	Belleville
T Docter, Miss G M	Toronto	C Hart, F B	Belleville
C Donald, Miss I M	Hamilton	C Hart, J L	Toronto
C Donaldson, Miss M C	Toronto	V Hartwell, Miss R K	Chengtu, China
V Dougall, H E	Oakville		
M*Duffy, F G	Hamilton	V Harvey, J M	Exeter
C Dunbar, Miss K S	Guelph	M Hayes, Miss A T	Toronto
V Duncan, D M	Toronto	M Healy, L T	Atherley
C Dworkin, B	Toronto	V Hendershot, Miss G	Hamilton
C Elliott, Miss M E	Kamloops, B C	C Hetherington, Miss O I	Toronto
C Elsley, W B	Campbellville	C Hethrington, H	Toronto
M English, Miss E M	Toronto	C Hicks, Miss J M	Kars
M Enright, Miss M M	Toronto	V Hill, A S H	Windsor
V Evans, Miss F K W	Toronto	C Hill, G E	Toronto
V Everett, Miss M L	Iroquois	C Hill, Miss G E	Toronto
C Ewart, Miss A H	Toronto	T Hill, L C	Hespeler
C Fairbairn, Miss H	Toronto	V Hiltz, Miss A E	Toronto
C Farncomb, F J	Toronto	C Hird, Miss E	Wallaceburg
C Fenwick, Miss D A	Toronto	V Hoidge, Miss A M	Toronto
C Finch, R D C	Toronto	V Hollinrake, H A	Hamilton
C Findlay, D H	Carleton Place	C Holmes, B	Toronto
M Flaherty, J F	Alton	C Hough, H B	Amherstburg
C Fleming, D M	Galt	M Houlahan, Miss G	Toronto
C Fleming, R H	Toronto	V Howson, Miss L C	Norwood
C Fraser, Miss M A M	Ottawa	V Hubbell, Miss B H	Smiths Falls
C Gelber, E E	Toronto	V Hudson, F E	Toronto

\*Michaelmas Term

Name	Home Address	Name	Home Address
C Hull, Miss M C	Toronto	C Macdonald, L G	Foxt William
V Hunter, R S	Kaslo, B C	C McDonald, W E	Glencoe
V Hussey, L	Clarkes Beach, Nfld	C McDonnell, Miss C	Toronto
C Huth, Miss M I	Stayner	C MacEwan, Miss M J	Goderich
C Hutton, Miss S B	Tilbury	M McGovern, Miss K	Toronto
T Irvine, Miss A M	Shannonville	C McHenry, Miss E	Toronto
C Jack, J C	Toronto	V McIlroy, Miss T R	Hamilton
M James, Miss C F	Toronto	V MacInnis, Miss J H	Iroquois
V Jenking, Miss R I	Toronto	V McKay, Miss B H	Woodstock
V Jerome, Miss E A	Dundas	C McKay, D D	Toronto
C Johnston, Miss D M	Toronto	C MacKerricher, Miss A C	Horizon, Sask
V Junkin, W R	Toronto	C MacKinnon Miss M C	Crabbrook, B C
C Kaplan, Miss I S	Toronto	M McLaughlin, T P	Northfield
M Kastner, Miss E C	Toronto	V McLean, Miss M D	Lindsay
C Keast, R. W	Toronto	C McLean, Miss R M	Toronto
V Keenleyside, E A	Regina, Sask	T McLennan, Miss E Z L	Beaverton
C Keens, Miss M M	Toronto	C McLeod, Miss A F	Toronto
M Kehoe, Miss C E	Bolton	C McLeod, G P	Toronto
C Kellman, Miss H A	Barbados, B W I	V McMullen, Miss F G	Belleville
V Kendrick, T D	Toronto	C McMurchie, Miss J	Clinton
C Kenen, I L	Toronto	M McNally, Miss K E	Utterson
M Kingsley, Miss N	Lindsay	M Mahon, J A	Aberfoyle
T Kister, C V	Chippawa	C Maier, C J	Hamilton
T Klahn, J O	Stratford	M Marks, Miss M	Hamilton
V Klnck, I J	Elmura	M Martin, P J J	Pembroke
C Kniveton, Miss M J	Toronto	M Martin, W. S	Whitehorse, Yukon
V Knox, Miss K D	Toronto	V Mason, T G	Toronto
C Koskey, K	Hamilton	C Matthews, A S	Toronto
V Lane, W S	Toronto	C Mayhew, Miss A E	Huntsville
V Langford, H E	Calgary, Alta	C Melhuish, Miss G I	Toronto
M Laroche, Miss B V	Ottawa	V Miller, F C	Stratford
C Lash, K M	Toronto	V Mills, R S	Toronto
M Latchford, Miss D	Toronto	C Minden, H A	Hamilton
C Latchford, J S	Toronto	C Mitchell, Miss P	Toronto
C Lawson, F S	Toronto	T Mitchell, Miss R H	Lucknow
C Lawson, J S	Guelph	C Monypenny, Miss C F	Toronto
T Lazier, H D F	Hamilton	M Moore, Miss C B	Toronto
V Lewis, L H	Oxbow, Sask	C Morden, Miss E D	Hamilton
C Liggett, M J	Guelph	T Morrison, C M	Vancouver, B C
V Lindsay, E H	Hagersville	C Morwick, Miss I	Hamilton
C Lindsay, Miss M M L	Renfrew	C Murphy, Miss M A	Wardsville
C Lippert, H J	Kitchener	M Murtha, T J	Toronto
C Little, W	Teeswater	C Nichol, Miss F I	Durham
C Littlejohn, R H	Toronto	V Norman, Miss G L	Mitchell
V Livermore, E S	Clinton	C Norsworthy, Miss H A	St Thomas
C Locheed, Miss I J B	Hamilton	V Oaks, Miss B R	Preston
C Lyall, Miss J E	Niagara-on-the-Lake	M O'Boyle, B J	Dundas
M Lyons, J J	Ottawa	M O'Brien, J E	Hamilton
C McAllister, S	Toronto	M O'Neill, M C	Ottawa
C McBride, Miss M E	Smiths Falls	T Ormsby, Miss N A	Toronto
C McClure, A D	Chesley	V Orr, W R	Glencairn
C McCullagh, P F	Cobourg	M O'Sullivan, Miss M B	Hamilton
M MacDonald, J A	Aurora		

†Dispensation for Session

Name	Home Address	Name	Home Address
C Page, F H	Toronto	C Sheahan, Miss R M	St Catharines
V Park, C G	Fair Ground	C Shearson, C A	Toronto
V Parker, Miss M F	Caledonia	C Sheppard, Miss D A	Aurora
C Parker, Miss M K	Stratford	C Sheppard, G R	Toronto
V Parr, R H	Melbourne	C Shepperson, Miss N F	Brantford
C Paton, Miss H I	Toronto	C Shortill, Miss J	Toronto
C Paton, R W	Flesherton	C Simpson, G H D	Ottawa
T Patterson, Miss E M	Paris	V Sine, Miss N M	Belleville
C Patterson, W E	Toronto	V Sipprell, Miss T R	Victoria, B C
C Pequegnat, R J	Guelph	V Slater, Miss E S	Toronto
C Perry, R H	Welland	V Slater, Miss P E	Waterdown
C Pezzack, J	Toronto	V Smith, A E	Toronto
V Philp, R W	Arthur	C Smith, Miss G E	St Catharines
C Phippen, B C	Sarnia	C Smith, Miss G S	Stouffville
T Ponsford, Miss V I	St Thomas	V Snider, Miss L Y	St Jacobs
C Porter, J C	Toronto	V Snyder, Miss G	St Jacobs
C Raney, Miss A H	Toronto	C Snyder, S A	Waterloo
C Rapley, Miss M C	Strathroy	C Solomon, Miss F D	Brighton
C Reading, Miss I D	Toronto	C Somerset, Miss T E	Burlington
C Reeves, Miss M	Fort Frances	T Sparling, G	Toronto
C Reid, L D	Toronto	C Spedding, Miss A K	North Bay
C Rhodes, J B	Toronto	C Spence, W F	Toronto
C Richardson, A L A	Toronto	C Spragge, W P	Toronto
V Ricker, Miss V M	Canfield	C Sprott, Miss W R	Toronto
V Roberts, Miss J S	Toronto	V Squire, Miss R S	Norwood
T Robertson, A B	Victoria, B C	C Stagg, Miss E A	Brockville
C Robertson, Miss E D	Victoria, B C	C Stagg, R G	Toronto
V Robertson, Miss F G	Iroquois	V Stalter, O R	Oshawa
C Robinson, S H	Walkerville	C Standing, Miss E M	Brantford
C Robinson, W A	Penetanguishene	C Stevens, Miss M B	Port Elgin
C Rodgers, Miss W L	Toronto	V Stevenson, S E	Melbourne
C Rogers, Miss D M	Toronto	V Stinson, Miss M G	Peterborough
V Rogers, R R	Norwood	C Stirling, Miss J M	Ancourt
C Root, Miss S B	Dunnville	C Stoddart, Miss H G	Toronto
V Rose, Miss E J	Port Perry	C Stoddill, C G	Toronto
V Rose, Miss G R F	Port Perry	C Strauss, N	Toronto
C Rose, H J	Toronto	C Stubbs, Miss B E	Toronto
C Ross, Miss E	Toronto	C Stubbs, Miss C E	Toronto
C Ross, Miss M T	Brussels	C Sullivan, M V	St Catharines
C Ross, Miss P A	Hawkebury	C Talbot, Miss W V	Calgary, Alta
V Rowell, Miss M C	Toronto	C Taylor, Miss M J	Toronto
M Runstadler, Miss M	Toronto	C Taylor, R C	Toronto
M Rush, E W	Toronto	M Theobald, J C	Peterborough
V Rutnam, R L	Toronto	V Thomas, Miss A M	Niagara Falls
C Salter, P E	Toronto	V Thompson, Miss F L	Toronto
C Saul, Miss M E	Toronto	C Thomson, Miss J	Toronto
V Schlichter, Miss N M	Bright	T Thomson, J H	Rothesay, N B
C Schmidt, Miss E M	Stratford	M Thomson, V A	Toronto
C Scott, C B C	Toronto	C Thorburn, Miss M T	Niagara Falls
C Shadick, H E	London, Eng	C Thorold, Miss M A	Toronto
M Shannon, Miss C A	Biscotasing	C Tilley, E P	Bowmanville
M Sharpe, G V	Toronto		

†Dispensation for Session

†Dispensation for Michaelmas Term

\*Michaelmas Term

Name	Home Address	Name	Home Address
C Trent, Miss E F	Toronto	C West, Miss P M	Toronto
C Troop, Miss E J	Ottawa	V Westington, M M	Bewdley
V Turnbull, R H	Dundas	C Whaley, A C	Embro
V Uren, Miss H E	London	M Whelan, J H	Westport
V Vanderburgh, F R	Maple	C*White, R	Toronto
C Vanstone, Miss J	Wingham	C White, R G	Moose Jaw, Sask
C Vennels, G W	Regina, Sask	C Whitfield, H G	Peterborough
C Veity, Miss F E	Brantford	C Wiancko, Miss F H	Toronto
V Vokes, Miss M C	Toronto	C Wickson, Miss M E	Toronto
V Wainwright, Miss E T	Huntsville	V Willard, Miss E G	St Marys
C Walker, B R	Toronto	V Williams, P E	Toronto
T Walker, Miss M C	Grand Bend	T Wilson, Miss A N	Duncan, B C
C Wallace, Miss E	Goderich	C Wilson, Miss E D	Seaforth
V Wallace, Miss M	Kamsack, Sask	V Wilson, H G	Toronto
C Wallace, Miss M E	Burgessville	C Wolfson, N	Toronto
T Wallace, Miss M K	Toronto	V Wood, J H	Millbrook
C Wallace, Miss M V	Toronto	C Wood, Miss M H	Toronto
M Walsh, Miss M M	Lindsay	V Woods, W L	Toronto
V Walwyn, J P	Weston	V Woolnough, Miss V G	Niagara Falls
C Wanamaker, Miss H E	Niagara Falls	V Wright, H L	Hamilton
C Ward, Miss E M	Toronto	C Wright, Miss H M	Toronto
C Watson, R J	Toronto	C Wrong, Miss A H	Toronto
C Watson, W R	Paris	M Yates, Miss M C	New Liskeard
C Webb, G W M	Toronto	C Young, D A	Toronto
C Weber, W C	Windsor	M Young, Miss K A	Toronto
C Weinberg, D	Toronto	C Younger, Miss R E	Toronto
V Wells, W I	Campbellton, N B		

## SUMMARY—THIRD YEAR

University College	244
Victoria College	114
Trinity College	24
St Michael's College	50
Total	432

## FOURTH YEAR

C—University College, V—Victoria College, T—Trinity College,  
M—St Michael's College

Name	Home Address	Name	Home Address
V Adams, Miss N G	Toronto	C Baldwin, R W	Toronto
C Allison, Miss J L	Walkerville	M Barnett, L F	St Catharines
C Anderson, Miss C E H	Toronto	M*Bauer, Miss A M	Waterloo
C Armitage, Miss D	Toronto	T Beaumont, H	Glen Wilhams
C Asman, Miss M L	Toronto	T Bell, J A M	Humberstone
V Atchison, Miss I R	Winnipeg, Man	C Bell, W G	Britannia Bay
V Attridge, C G	Waterdown	C Bennett, Miss E I	Mille Roches
V Augustine, Miss H G	Port Colborne	T Bettes, Miss H T	Jacksonville, Fla
C Baird, Miss K	Chatham	V Blum, W O	Owen Sound
*Michaelmas Term		C Bonnell, F H	Ferne, B C

Name	Home Address	Name	Home Address
C Bovaird, Miss G	Brampton	C Edmonds, Miss M B	St Thomas
V Boyle, Miss E J	Toronto	C Edwards, Miss M S	Gananoque
C Brisbin, Miss J M	Harriston	M Ellard, B S	Toronto
C Brodie, Miss L T	Toronto	V Elliot, Miss J B	Peterborough
C Brown, Miss A J	Toronto	V Elliott, Miss K E	New York City
C Bryce, G M	Toronto	C† Elliot, Miss O E	Toronto
C Buffam, Miss M C W	Perth	C Ellis, Miss O E	Toronto
M Burke, Miss E M	Ottawa	V Endicott, N J	Toronto
M Burke, J V	Alliston	C English, Miss F P	Toronto
C Burns, D K	Pembroke	C Entwistle, A W	Guelph
C Byles, S R	Toronto	V Fawcett, Miss M B R	Toronto
C Calvert, G R	Kingston	C Fawcett, Miss M J	Toronto
V Campbell, Miss M	Perth	V Fenwick, Miss M M	St Johns, Nfld
M Campbell, Miss M R	Hanilton	C Field, A C H	Cobourg
C Carmichael, Miss M F	Toronto	C Finlayson, R A	Dutton
C Carson, Miss N I	Toronto	V Finnie, A G	Bathurst
V Carter, Miss R A	Galt	C FitzGerald, F G	St Catharines
T Cayley, H C	Toronto	C Foran, Miss M L	St George
C Chaikoff, I L	Toronto	M Forner, B N	Toronto
C Chambers, Miss E C	Toronto	C Forster, L C	St Catharines
C Clark, J F	Ottawa	C Foster, Miss M G	Listowel
V Clarke, W H	Lindsay	V Franks, W R	Regina, Sask
V Cocks, Miss L A	Winona	C Freedman, J	Toronto
M Coffey, Miss G A	Toronto	C Fulford, G T	Brockville
V† Colley, A K	Toronto	C Fulford, R T	Brockville
C Collwill, Miss M B	Arthur	C Fuller, Miss A L	Sarnia
V Cooke, J P	Fullarton	M Garden, Miss M E	Peterborough
C Copping, Miss M E	Ft William	C Gardiner, Miss A C E	Mt Forest
V Couch, H N	Strathroy	M Garland, Miss M	Toronto
C Coulter, Miss J I	Alliston	M Gavard, W L	Thorold
V Cowan, R B	Peterborough	C Gavin, Miss E G	Toronto
C Cronk, Miss M W	Pickering	C Gibson, Miss F E P	Oakville
C Crow, Miss L E	Chatham	T Gillard, Miss A E	Toronto
C Crozier, E	Toronto	C Gogo, Miss J L M	Cornwall
C Cryer, J	Charing Cross	V Gosse, R E	Petites, Nfld
V Culham, Miss M	Islington	V Graham, E H	Toronto
V Cummings, R C R	Toronto	T Graham, G C	Toronto
V Cunningham, F J G	Regina, Sask	C Grant, Miss C W	Toronto
C Currie, P N W	Ottawa	C Grant, W G	Port of Spain, Trin
C Dagger, Miss E M A	Toronto	V Gray, Miss A M	Listowel
C Darke, C T	Regina, Sask	C† Griffith, Miss B M	Toronto
V Davidson, Miss S M	Lumsden, Sask	C Griffith, Miss M I	Honan, China
V Davies, Miss K M	Toronto	T Grout, Miss A E	Arnprior
C Davis, J A	Grand Forks, B C	C Gullette, Miss B A	Toronto
V Depew, Miss Margaret E	Paris	C Haines, Miss D F	Thornhill
V Depew, Miss Mary E	Paris	C Haines, J A	Toronto
C Djang, W B	Shantung, China	C Halford, Miss K M	Toronto
M Dobell, Miss M M	Toronto	C Hambly, Miss D S	Ottawa
C Doig, W P	Wroxeter	C Hampson, Miss D	St Catharines
V Domm, G O	Ayton	V Hanna, Miss J V	Toronto
V Douglas, L H	Norval	C Harris, Miss L A	Toronto
C Doxsee, M I	Toronto	C Hastie, W J A	Toronto
M Dunnigan, Miss E C	Toronto	V Hastings, Miss M D	Aurora
M Dwyer, F A	Toronto	C Haywood, K D	Toronto

†Dispensation for Michaelmas Term

Name	Home Address	Name	Home Address
T Hazlewood, Miss A L	Bowmanville	C McConnell, Miss K	Toronto
C Hewetson, H W	Vancouver, B C	M McCormack, Miss I M	Battleford, Sask
C Higgins, Miss E A	Clinton	C McCready, Miss M L	Toronto
V Hilliard, Miss A M	Morrisburg	C McCreary, Miss F K	Wallaceburg
C Hilliard, T A	Kitchener	C McCubbin, Miss C A	Chatham
C Huslop, Miss E B	Stratford	C McCulley, J	St Thomas
C Huslop, Miss E E	Toronto	C McCullough, W S	Toronto
V Hope, H B	Milliken	C* MacDonald, C C	Murkirk
C Horal, J	Murkirk	C Macdonald, Miss I M	Markham
C Howard, B W	Ottawa	M MacDonald, T A	Toronto
C Howell, Miss M K	Toronto	C McElroy, Miss E L M	Ottawa
C Huband, A R	Ottawa	C McFadden, A P	Sault Ste Marie
C Hugli, H R	Toronto	M McGahey, J E	Toronto
C Hunter, Miss A B	Toronto	C McGeachy, Miss M A	Sarnia
C Hurst, Miss H J	Alliston	C McGregor, Miss H J	Caledonia
V Hutcheson, Miss M M	Toronto	C McIntosh, G A	Guelph
C Hwang, L	China	V McKay, Miss G H	Toronto
C Hyde, J	Pincher Creek, Alta	C McKay, W S	St Thomas
C Innes, Miss J B	Toronto	C McKenzie, L M	Guelph
M Irvine, Miss E A	Toronto	M McKeon, F J	Hamilton
V Irwin, Miss I F	Toronto	C MacLaren, Miss J D	Brockville
V Jackson, Miss D B	Toronto	C McLean, J L	Ottawa
C Johnston, J	Toronto	C McLeod, Miss C. G	Toronto
V Johnston, Miss M W	Hamilton	C McNichol, Miss D E L	Toronto
V Jones, Miss V I	Parry Sound	C MacRae, F J	Toronto
M Kavanagh, Miss A M.	Penetanguishene	C Mahoney, Miss H L	Guelph
C Keenleyside, Miss H A	Regina, Sask	V Matland, Miss J A B	Toronto
C Keith, W S	Toronto	C Mallon, J G	Toronto
C Kelly, J G	Toronto	C Manson, Miss K R	Toronto
C Kelso, M M	Toronto	C Matenko, P	Toronto
T Kembar, A K	Creemore	C Matthew, Miss D A	Georgetown
C Kennedy, Miss E J	Toronto	V Matthews, N W	Rockwood
V Kirby, F B	Toronto	C Maxwell, Miss J G	St Mary's
V Kitching, O C H	Woodstock	C Maybee, G E	Port Credit
C Knowles, Miss M V	Sarnia	C Meen, H	Toronto
C Krieger, Miss C	Toronto	V Metzler, S J	Napanee
C Laird, A M	Norval	C Miller, W R	Toronto
C Lane, Miss A M	Orangeville	T Mitchell, D R	Oshawa
M LeBel, E C	Toronto	V Mix, I W	Ottawa
M Lee, E G	Toronto	V Moir, Miss K V	Oxbow, Sask
V Lennox, A M	Shallow Lake	V Monkman, Miss O	Toronto
V Little, Miss R M	Dundalk	V Moody, Miss M E	Winnipeg, Man
V Long, E E	Woodstock	V Moores, H	Blackhead, Nfld
V Longworthy, Miss D L	Regina, Sask	C Morgan, L S	Toronto
C Lowden, Miss J G	Toronto	C Morrell, C A	Hamilton
C Luxton, J H	Jessopville	C Mowat, W H	Peterborough
M McBrady, Miss L	Toronto	M Mulvihill, Miss J E	Arnprior
C McBride, Miss S M	Port Perry	M Mulvihill, T C	Arnprior
C McCall, Miss M D	Simcoe	V Mundy, Miss L E	Toronto
V McColl, D B	Regina, Sask	M Murray, Miss E M	Burchcliff
C McConkey, Miss E A M	Toronto	C Mustard, Miss E M	Chatham
		C Mutchmor, H A	Hamilton
		V Noble, T D	Toronto

\*Michaelmas Term



Name	Home Address	Name	Home Address
C O'Brien, Miss M J	Franklin	C Stewart, J A M	Buffalo, N
M O'Brien, A D	Toronto	V Stewart, Miss N H	Toronto
M O'Brien, D C	Merrickville	V Stewart, Miss R J	Tillsonburg
M O'Brien, J T	Hamilton	V Stone, A R	Highgate
M O'Neil, Miss K M	Brantford	V Stone, Miss G A	St Mary
V Pearson, Miss D M	Weston	C Stone, T A	Chatham
C Penman, W M	St Catharines	V Stover, Miss J E	Chatham
V Philp, C R	Colborne	C Struthers, Miss J F	Sudbury
M Pineau, Miss A C	Windsor	M Sullivan, Miss M E	Hamilton
C Plaxton, H A W	Toronto	C Sumbeig, S L	Toronto
C Poland, G W	Dunnville	V Sutton, R E	Lindsay
C Pritchard, J E	Harriston	V Sykes, Miss A L	Swift Current, Sas
T Pritchard, Miss M R	Ottawa	C Tait, C E	Toronto
V Pyne, Miss W M	Toronto	C Tanton, Miss M L	Londonderry
C Raikes, Miss E G	Barrie	V Thalmann, F	Vienna, Austria
T Ramsbottom, Miss M S	Conn	C Thomas, Miss M R	Toronto
C Reid, Miss B M	London	C Thompson, Miss M S	Toronto
V Reid, Miss M M J	Toronto	C Thomson, R	Dobbinsville
C Relyea, F B	Perth	M Toole, W B	Toronto
C Richardes, G C	Toronto	C Tory, J S D	Toronto
C Riddell, Miss H G	St Catharines	V Toye, Miss G E	Toronto
V Ririe, W B	Toronto	V Trask, R	Alma
V Rivers, F S	Lucknow	V Trewin, R F	Toronto
M Roach, Miss M G	Arthur	V Troop, W H	Ottawa
C Robbins, Miss H E	Walkerville	C Tuer, J E	St Mary
T Roderick, J H	Stoney Creek	C Turner, Miss J F	Nelson, B C
T Ross, D G	Toronto	M Vahey, T J	Toronto
C Rotenberg, H D	Toronto	C Valentine, Miss E M	Toronto
C Rutherford, Miss H C	Toronto	C Waldron, K S	Hamilton
M Ryan, Miss M A	Toronto	C Walker, Miss F E	Toronto
C Sadowski, Miss E	Toronto	C Wallace, Miss G M	Osgood
C Sanderson, A L	Wroxeter	C Walls, Miss A E	Sarnia
C Schell, Miss E M	Stayner	V Walton, Miss W G	Parry Sound
C Schell, Miss G	Stayner	C Warren, Miss J L	St Catharines
V Schmidt, Miss E M	Tavistock	T Washington, C F	Cummings Bridge
V Scott, A W	Calgary, Alta	C Watt, Miss I K	Toronto
C Secord, Miss M L	Toronto	C Weir, Miss M A	Toronto
M Servais, F J	Port Arthur	C Wells, Miss K B	Toronto
C Sher, D	Toronto	C West, Miss G A	Toronto
C Shute, E V	Windsor	V*Westman, Miss E M	Toronto
C Sims, H desB	Thistletown	T Wheeler, T J	Toronto
V Singleton, Miss M E V	Toronto	V White, Miss M A	Lindsay
V Sissons, Miss M H	Toronto	V Wiggins, Miss G E	Kemptville
C Skelton, Miss J E	Mimico Beach	C Wilkinson, C R H	Toronto
C Smith, Miss A M B	Toronto	C Wilson, D F	Toronto
V Smith, D M	Campbellcroft	V Wingfield, Miss M M	Hamilton
C Smith, Miss E G	Toronto	V Worthington, Miss E M	Toronto
T Smith, F A	Cataraqui	C Wright, Miss M M	Richmond Hill
C Smith, Miss H M	St Thomas	C Wyke, D A	Toronto
V Spence, Miss F M	Lucknow	V Wylie, Miss M A	Kamloops, B C
C Spence, Miss M	Toronto	C Wynne-Roberts, O L	Toronto
C Stanley, A A	Toronto	C Zybace, Miss M P	Niagara Falls
C Steen, Miss E G	Ridgetown		

\*Michaelmas Term only

## SUMMARY—FOURTH YEAR

University College	190
Victoria College	91
Trinity College	17
St Michael's College	37
Total	335

## OCCASIONAL STUDENTS

C—University College, V—Victoria College, T—Trinity College,  
M—St Michael's College, U—University of Toronto

Name	Home Address	Name	Home Address
U Adye, E R G	Toronto	C Donald, A G	Toronto
C Aitken, G	Toronto	U Douglass, W R	Toronto
C Anderson, R H	St John, N B	C Eames, Mrs F M	Toronto
C Andrews, C D	Leominster, Eng	U Eddy, F B	Winona
U Armstrong, J W	Allandale	U Edmonds, A J	Toronto
U Atkinson, J	Toronto	U Ellis, J D	Mount Forest
U Baker, H F	Toronto	U †Ferguson, R I	Toronto
C †Bayne, Miss D W	Ottawa	C Ferguson, R V	Rutherglen, Scotland
T Beaumont, Miss E	Glen Williams	U Filer, W A	West Hamilton
U Belyea, Miss L	St John, N B	U †Fingland, F	Londesboro
U Boyde, H A F	Hamilton	CV †Flahiff, G B	Paris
U †Bredin, W	Toronto	U †Fleury, Mrs V	Toronto
C Brennen, Miss S	Hamilton	U Flood, A J	Toronto
U Brewer, W G	Hamilton	U Flook, C A	Chatham
V Brown, M R	Lindsay	V Follett, Miss E G	Toronto
C Bull, Miss E W	Toronto	U Foster, Miss C P	Toronto
M Burdett, Miss M E	Hamilton	M Fraser, G E M	Ottawa
U Butler, J H	Hamilton	C Fuller, W E	Peterborough
V Butt, W S	Western Bay, Nfld	C Garfinkel, Miss L	Toronto
U Campbell, Mrs W N	Toronto	U Gibson, H J	Newcastle
V Card, J A	Harrisburg	C Graham, D M	Toronto
C Carefoot, Miss M A	St Catharines	U Graham, Miss L G	Bothwell
T Cates, J A M	Toronto	C Greig, J R	Shallow Lake
U Chapman, A	Southwood	U †Harries, I C	Toronto
U †Clute, Mrs A	Toronto	U Harvey, Miss M I	Peterborough
C †Coffee, Miss M	Guelph	U Hassard, Miss G G	Toronto
C †Coghlan, D H	Fort William	C †Hayes, Miss A T	Toronto
C Cohen, Miss T	Toronto	U Hodgkinson, R G	Ottawa
U Collinson, J G	Toronto	C Holmes, R H	Toronto
U †Cook, F G	Toronto	C Hopkins, Mrs M D	Toronto
C Cressman, J B	Kitchener	C †Irvine, Miss E A	Toronto
U Crowther, Miss K L	Toronto	U Irwin, Miss K P	Toronto
C Culbertson, Miss F B	Whitehorse, Yukon	U Jackman, H R	Toronto
U Davies, J R	Windsor, N S	U Jacques, E	Killarney, Man
T Davis, Miss G E M	Toronto	U James, C F	Toronto
T Davis, Miss I A C	Toronto	C Johnston, Miss D M	Toronto
U DiStasi, M	Toronto	V Kaine, I P	Thamesville
C Doe, W A E	Hamilton, Bermuda	C †Kasner, Miss E C	Toronto
		C †Kavanagh, Miss A	Penetanguishene

†Easter Term

§Duplicate Registration

Name	Home Address	Name	Home Address
U Kehoe, F	Wingham	U †Pidgeon, G L	Toronto
C §Kingslev, Miss N	Lindsay	V Powell, Miss A E	Toronto
U †Kitchen, C E	Toronto	U Province, W J	Toronto
U †Klotz, Miss M E	Ottawa	C §Roach, Miss M G	Arthur
U Kramer, Miss H M F	Guelph	U Rogers, A W	Toronto
C §Larochelle, Miss B V	Ottawa	M Roney, R J	Pembroke
C Lee, Miss E M	Toronto	C Rose, Miss M J	Toronto
C Legge, Miss E M	Toronto	U †Rosenthal, H	Toronto
V LeGrow, A C	Broad Cove, Nfld	U †Ross, J L	Erindale
V Luke, Miss S M	Toronto	U Ryan, G M	Hamilton
C §McAlpine, C J	Marysville	U Scovell, G S	Toronto
U McCullum, A C	Toronto	C Sellars, M	Toronto
C §†MacDonald, C C	Muirkirk	V §Sharpe, G V	Toronto
M †McDonnell, A J	Pembroke	V Shields, G A	Innerkip
C §McEnaney, V X	Toronto	C Shillington, Miss E E	Lethbridge, Alta
C §McGovern, Miss K	Toronto	C Smith, J F W	Toronto
C MacLaren, Miss C E	Perth	U Smith, Miss J M	Toronto
C MacLennan, Miss H M	Toronto	T Snowden, Miss M C	Ottawa
V MacMillan, D	Brantford	C Somers, Miss I B	Toronto
C MacMillan, Miss W R	Toronto	U †Sparrow, W H	Toronto
U McNamara, Miss M	Niagara Falls	U Stump, A W	Niagara Falls
C MacQuarrie, Miss H L	Toronto	V Takizawa, S	Nagano, Japan
U Mallon, J P	Toronto	CV §*Tallon, C V	Cornwall
C §Marks, Miss M	Hamilton	U Taylor, Miss C L	Toronto
C Mather, Miss H C	Toronto	V Thistle, W T	St John's, Nfld
C Messervy, Miss E	Charlottetown, P E I	C §Toole, W B	Toronto
C Metford, E H	Toronto	C Torrance, J C	Toronto
V Moores, W J	Red Bay, Labrador	C Towers, Miss C E	Toronto
C §Mulvihill, Miss J E	Arnprior	C §Vahey, T J	Toronto
C Newman, J A	Toronto	U †Wakelin, A G	Toronto
C §O'Boyle, B J	Hamilton	U *Wallace, F E D	Brantford
C §O'Brien, Miss A	Toronto	T Wallace, Miss H B	Napanee
M O'Donnell, B	Bathurst, N B	C §*Walsh, Miss M M	Lindsay
C §O'Neill, M C	Ottawa	T Walters, Miss E	Kitchener
V Oshio, H	Kobe, Japan	M Wilbur, G H	Bathurst, N B
U Osler, Miss P A	Toronto	T Wilson, D	Oakville
U †Pakenham, F R	Norwood	C §Wilson, J L	Toronto
U †Park, B E	Peterborough	U Wilson, R F	Hamilton
C Pepperdene, L	Toronto	V Withrow, Miss F M	Toronto
C Peters, Miss M M	Toronto	C Worden, Miss H C	Cranbrook, B C
C Peters, Miss R M	Toronto		

## SUMMARY

University of Toronto	62
University College	66
Victoria College	18
Trinity College	8
St Michael's College	6
Total	160

\*Michaelmas Term

†Easter Term

§Duplicate Registration

## DEPARTMENT OF UNIVERSITY EXTENSION

## SUMMER SESSION, 1923

Name	Home Address	Name	Home Address
Ames, V N	Hamilton	McNabb, A P	Toronto
Andrews, Miss E L	Simcoe	McPherson, Miss S H	St Raphaels West
Baker, L L	Toronto	Macklin, G E	Milliken
Banks, Miss M B	Toronto	Martin, A A	Newcastle
Beacom, E C	Toronto	Martin, T H W	Weston
Bell, C B	Ottawa	Meagher, N J	Toronto
Biggart, J R	Toronto	Mitchell, Miss J A	Drumbo
Bingle, T	Brantford	Morris, C M	Feversham
Briggs, J B	Owen Sound	Norris, D A	Toronto
Brock, M W	Calgary	O'Connell, Miss M A	Peterborough
Cameron, R C	Toronto	O'Connor, Miss K	Toronto
Campbell, G T	Madoc	O'Sullivan, Miss B	Hamilton
Clarke, Miss M	Calgary	Park, M H	Peterborough
Collins, W A	Petrolia	Parker, H T	Caledonia
Cook, Miss I M	Toronto	Patten, F G	St George
Coulson, R W	Toronto	Perrin, Miss M W	Toronto
Coutts, Miss M J	Hamilton	Pike, A B	Toronto
Crosby, Miss M E B	Markham	Porter, W A	Toronto
Cross, Miss J I	Toronto	Quinn, Miss M G	Toronto
Dawson, B B	Millbrook	Raymond, Miss U	Toronto
Dawson, Miss V M	St Catharines	Reesor, Miss E G	Markham
Devitt, L K	Toronto	Rose, Miss E J	Port Perry
Dickson, A C	Toronto	Rutherford, G C	Toronto
Dodds, Miss H M	Hamilton	Sager, E	Smithville
Duignan, Miss J M	Hamilton	Schnick, F W	Napanee
Edwards, H W	Denbigh	Sheridan, Miss R M	Agincourt
Elliott, A H	Toronto	Short, J H	Toronto
Elliott, F W	Toronto	Smith, C R	St Marys
Feasby, H G	Toronto	Stephens, J E	Pembroke
Fenton, J J	Windsor	Stewart, Miss J	Toronto
Fritz, W E	Clifford	Sutton, H P	Parkhill
Game, J M	Toronto	Thompson, Miss J A V	Blyth
Garbutt, E P	London	Toll, C E	Toronto
Garrett, N P	Auburn	Torrance, T M	Kincardine
Gibson, J A	Toronto	Tovell, W V	Priceville
Gignac, Miss I Z	Windsor	Tryon, Miss M J	Port Hope
Glave, Miss E J	Brantford	Tuer, Miss M	Toronto
Gray, H F	Toronto	Turner, Miss O M	Toronto
Haug, A P	Toronto	Tustin, Miss E A	Mount Dennis
Harris, H W	Ripley	Wagg, J C	Toronto
Harris, Miss L M	Port Perry	Walker, Miss L M	Toronto
Howie, Miss M F	St Catharines	Watt, J H	Toronto
Johnston, Miss H A	Toronto	Wen, Miss I M	Toronto
Kennedy, Miss H E	Princeton	Wilker, M J	Claremont
Lemay, Mrs G A	Grimsby	Wilson, Miss B C	Niagara Falls
Lusty, E H	Rodney	Wilson, Miss M K	Clarence
Lynch, Miss R A M	Toronto		
McEwen, F A	Toronto		

## OCCASIONALS

Name	Home Address	Name	Home Address
Abernethy, Miss J	Beeton	Milliken, Miss A J	Strathroy
Acland, Mrs M L D	Toronto	Milne, K C	Blackwater
Aitken, G	Toronto	Patten, Miss D G	Milwaukee, U S A
Bigelow, P J	Orono	Sharpe, C T	Toronto
Bolingbroke, H	Hamilton	Silcox, J B	Dorchester
Bush, J A	Toronto	Stobie, Miss C L	Ypsilanti, U S A
Duff, Miss A I	Toronto	Switzer, Miss J E	Toronto
Eames, Miss F M	Toronto	Tolhurst, F E	Toronto
Elliott, W H	London	Wallace, F E D	Biantford
Howarth, Miss M W	St Thomas	West, Miss J R	Toronto
Iavis, D O	Port Whitby	Williams, W	Newbury
Martin, Miss G E	Toronto	Winchester, H S	Ottawa
Meen, H	Toronto		

## TEACHERS' CLASSES

## TORONTO

Name	Home Address	Name	Home Address
Allan, Miss J L	Toronto	Kammerer, Miss H	Toronto
Anderson, Miss K M C	Toronto	Kearney, Miss W A	Toronto
Armstrong, D W	Toronto	Kell, Miss C L	Toronto
Arthur, Miss L M	Toronto	Kerruish, H B	Toronto
Baker, L L	Toronto	Lang, Miss R B	Toronto
Beacom, E C	Toronto	Langdon, R	Toronto
Biggart, J R	Swansea	Lavery, W G	Toronto
Black, H C	Toronto	McCool, Miss A C	Toronto
Boucher, G R	Toronto	McCredie, E C	Toronto
Bremaer, H A	Toronto	McEwen, F A	Toronto
Briggs, J B	Toronto	McGregor, B	Toronto
Cameron, R	Toronto	MacInnes, Miss E M	Toronto
Campbell, G T	Toronto	MacKay, Miss M M	Toronto
Code, J A	Toronto	MacTavish, Miss F	Toronto
Cole, R G	Toronto	McNabb, A P	Toronto
Cork, S F	Toronto	Macklin, G E	Toronto
Cornwall, Miss C F	Toronto	Magee, Miss C H	Toronto
Crone, Miss M	Toronto	Malcolm, Miss M J	Toronto
Crosby, Miss M E B	Markham	Manders, C	Toronto
Cross, Miss J I	Toronto	Manning, C E	Toronto
Cummer, Miss E M	Oshawa	Martin, Miss K E	Toronto
Davidson, Miss A M	Toronto	Martin, T H W	Weston
Davidson, Miss N E	Toronto	Mason, A A	Toronto
Devitt, L K	Toronto	Matthews, H L	Toronto
Dickinson, G H	Toronto	Merritt, R L	Toronto
Dickson, A C	Toronto	Mitchell, J H	Toronto
Doupe, H A	Port Credit	Moncrieff, Miss M R	Toronto
Eby, H E	Toronto	Moore, H C	Toronto
Elliott, A H	Toronto	Newton, L W	Toronto
Elliott, F W	Toronto	Nicholson, R W	Toronto
Evans, A G	Toronto	Nixon, D A	Toronto
Feasby, H G	Toronto	Norris, D A	Toronto
Fritz, W E	Toronto	Pamphilon, Miss I	Toronto
Game, J M	Toronto	Parker, H T	Toronto
Garbutt, E P	Toronto	Patten, F G	Toronto
Gibson, J A	Toronto	Perrin, Miss M W	Toronto
Grigg, Miss M E J	Toronto	Pike, A B	Toronto
Haig, A P	Toronto	Porter, W A	Toronto
Hancock, E W	Toronto	Prosser, T	Toronto
Harris, H W	Toronto	Quinn, Miss M G	Toronto
Hartwick, W E	Toronto	Ramsden, F C	Toronto
Hawkes, Miss R A	Oshawa	Raymond, Miss U	Toronto
Haydon, C W	Toronto	Reesor, Miss E G	Markham
Heinbecker, E G	Toronto	Reynar, Miss F C	Toronto
Henderson, J M	Toronto	Richardson, S	Toronto
Hewitt, B H	Toronto	Robb, I M	Toronto
Hooker, W V	Toronto	Robinson, Miss M A	Toronto
Houston, W J	Toronto	Ross, A M	Toronto
Howitt, C	Toronto	Rutherford, G C	Toronto
Hunter, A C	Toronto	Sager, E	Toronto
Jackson, Miss H K	Toronto	Scanlon, Miss M G	Toronto
Johnston, Miss H A	Toronto	Scott, Miss O M	Toronto

Name	Home Address	Name	Home Address
Short, J H	Toronto	Turner, Miss O M	Toronto
Sisson, Miss D T	Toronto	Walker, Miss L M	Toronto
Smith, C R	Toronto	Walling, W L	Toronto
Spearin, Miss C M	Toronto	Watson, S A	Toronto
Springate, Miss E B	Toronto	Waugh, Miss A M	Toronto
Squire, E V	Toronto	Waugh, Miss H J	Toronto
Sutton, H P	Toronto	Weir, Miss I M	Toronto
Toll, C E	Toronto	White, A G	Toronto
Torrance, T M	Toronto	Will, G	Toronto
Tryon, Miss M J	Toronto	Williamson, J D	Toronto

## OCCASIONALS

Belcher, A B	Toronto	MacEachern, Miss E V	Toronto
Biggart, Mrs E M	Swansea	Marsters, Miss L M	Toronto
Burrows, Miss M W	Toronto	O'Meara, Miss K	Toronto
Cropper, R E	Toronto	Parkinson, C N	Toronto
Dowdall, Miss B	Toronto	Prime, L W	Toronto
Fenton, Miss M	Toronto	Reid, Mrs H O	Toronto
Finley, Miss M L	Toronto	Stewart, A G	Toronto
Floyd, Miss E M G	Toronto	Stone, R J	Toronto
Foster, Miss C P	Toronto	Stover, I	Toronto
Johnston, Miss R W	Toronto	Wallace, F E D	Toronto

## HAMILTON

Ames, V N	Hamilton	Meuser, Miss O M	Hamilton
Colling, L J	Hamilton	Pickering, J R	Hamilton
Dodds, Miss H M	Hamilton	Pothier, Mrs K A	Hamilton
Duignan, Miss J M	Hamilton	Reding, G F	Hamilton
Duncan, Miss N M	Hamilton	Sabine, Miss M F	Hamilton
Gignac, Miss I Z	Hamilton	Smith, C B	Hamilton
Hinchliffe, Miss W	Hamilton	Stewart, Miss L A	Hamilton
Howe, Miss M	Hamilton	Tatham, Miss B	Dundas
Kennedy, Miss H E	Hamilton	Troup, Miss M	Hamilton
Keys, G P	Hamilton	Ward, Miss D E	Hamilton
Klinck, G A	Hamilton	Wilde, L C	Grimsby
Laurie, Miss B M	Hamilton	Wilson, Miss M A	Hamilton
Lema, Mrs G A	Grimsby	Witherspoon, Miss E	Hamilton

## OCCASIONALS

Bauer, Miss B M	Hamilton	Kappele, Miss E	Hamilton
Byrne, Miss F S	Hamilton	Lee, C S	Hamilton
Corwin, Miss E	Hamilton	McKenzie, Miss B	Hamilton
Cummings, Miss	Hamilton	Matches, Miss M R	Hamilton
Farmer, Miss F	Ancaster	Mullens, Mrs G	Hamilton
Hall, Miss H	Hamilton	Pasmore, Mrs M	Hamilton
Hodd, Miss E M	Hamilton	Richardson, H S	Hamilton
Jamison, Miss M B	Hamilton	Stewart, Miss I M	Hamilton
Joyce, Miss L C	Hamilton	Truscott, Miss R I	Hamilton

## ST CATHARINES

Appel, Miss V F	St Catharines	Howie, Miss M F	St Catharines
Cook, Miss M E R	St Catharines	O'Connor, Miss K	St Catharines
Dawson, Miss V M	St Catharines	Wilson, Miss B C	Niagara Falls
Harris, Miss F E	St Catharines	Young, Miss L G	St Catharines

## OCCASIONAL

Name	Home Address	Name	Home Address
Brennen, Miss L M	Port Dalhousie	Marquis, Miss M S	St Catharines
Cameron, Mrs C	St Catharines	Maxwell, Miss A	St Catharines
Carnochan, Miss G,	Niagara-on-the-Lake	Partridge, Miss R	St Catharines
Cohen, Miss L J	St Catharines	Ratcliffe, Miss M C	St Catharines
Creed, Miss C	St Catharines	Riggins, Miss L	St Catharines
Cruikshank, Miss V	St Catharines	Riley, Miss K	St Catharines
Cuffe, Miss E B	St Catharines	Robinson, Miss B L	St Catharines
Dawson, Miss E C	St Catharines	Seaman, Miss E E	St Catharines
Duff, Miss K E	St Catharines	Shannon, Miss D L	St Catharines
Edge, Miss A	St Catharines	Shannon, Miss S S	St Catharines
Hoople, Miss F O	St Catharines	Sutherland, Miss L G	St Catharines
Mackay, Miss D	St Catharines	Tasker, Miss M M	St Catharines
		Yawman, Miss M H	St Catharines

## SUMMARY

Summer Session Students	119
Teachers' Classes	221
Duplicate Registrations	52
Total	288

## SUMMARY IN THE FACULTY OF ARTS

	UNIVERSITY OF TORONTO	UNIVERSITY COLLEGE	VICTORIA COLLEGE	TRINITY COLLEGE	ST MICHAEL'S COLLEGE	TOTAL
First Year		345	162	36	41	584
Second Year		305	154	41	59	559
Third Year		244	114	24	50	432
Fourth Year		190	91	17	37	335
Occasionals	62	66	18	8	6	160
Teachers' Course	221					221
Summer Session	119					119
Duplicates	78	1				79
Totals	324	1149	530	126	103	2331



## FACULTY OF MEDICINE

## FIRST YEAR

Name	Home Address	Name	Home Address
Aiken, S	Toronto	Jackson, Miss M V	Toronto
Anderson, J L M	Port Hope	Johnston, C R K	Toronto
Andrews, F A	Aurora	Johnston, W H	Chatham
Ansley, H A	Rydalbank	Katz, S	Toronto
Appel, A	Toronto	Kelly, M J	Creighton Mine
Armstrong, A R	Oakville	Lavine, B	Toronto
Ashenhurst, A E	Toronto	Lewin, G W	
Avruskin, B	Salem		Stamford, South End P O
Bailey, Miss M E	Maple	Logan, G E C	Niagara Falls
Baldwin, Miss K W	Toronto	Lymburner, R	Hamilton
Ball, N J	Vernon, B C	McClinton, Miss I	Terra Nova
Batt, Miss M F	Toronto	Macdonald, G	
Baxter, K R	Upper Hamilton		Bernera Lewis, Scotland
Beasley, W W	Sandwich	McIntyre, A F	Owen Sound
Bradshaw, Miss P E	Windsor	McTavish, W A	Toronto
Bryant, E C	Toronto	Miller, H G	Galt
Burton, Miss B E	Toronto	Mitchell, R M	Honan, China
Calder, R G	St Catharines	Moffat, F W	Weston
Cohen, A	Toronto	Moffatt, I	Port Arthur
Cohen, I	Toronto	Nicholson, R E	Waterdown
Cosens, Miss M	Wingham	Northey, R W	Fenelon Falls
Denoon, J M	Toronto	Overholt, A A	Brantford
Doney, E H	Toronto	Peer, R J	Port Credit
Dorland, C	Burkton	Perfect, K E	Toronto
Eckert, L C	Agassiz, B C	Pollack, B	Toronto
Edsall, M C	Leamington	Railton, S V	Ayl
Epstein, M D	Toronto	Reiss, H	Toronto
Fallon, J A	North Bay	Richardson, Miss G I	Toronto
Ferreira, S E L		Robinson, R B	Toronto
	Duncans, Jamaica, B W I	Ross, J H	Toronto
Gardi, V A	Sault Ste Marie	Rossiter, J H	Sault Ste Marie
Gee, Miss E A	Gormley	Russell, W G	Millbrook
Glasse, D W	Toronto	Salkin, D S	Toronto
Gould, J	Toronto	Saunders, W H	Toronto
Grant, G H	Owen Sound	Sinclair, B L	Lansing
Grant, Miss M H	Toronto	Smulhe, I G	New Toronto
Greig, C H	Toronto	Snell, F Van V	Toronto
Greig, F M	Toronto	Sniderman, S	Toronto
Gundy, C L	Toronto	Stanton, O L	Toronto
Gundy, J E	Windsor	Steele, F H	Dunsford
Hamill, A S	Toronto	Turner, W A	Hamilton
Hardie, P W	Esquimalt, B C	Ungaro, D	Toronto
Harris, E R	Burlington	Vanderveer, Miss H L	Toronto
Hawkins, A R	Guelph	Walker, A H	Allandale
Hillery, D R	Toronto	Wallace, J W	Goderich
Howell, P T	Oshawa	Whaley, J B	Toronto
Ing, Miss M C	Toronto	White, C A	Fenelon Falls
Ireland, P E	Toronto	Wilensky, Miss B	Toronto

Name	Home Address	Name	Home Address
Willett, A W	Toronto	Wright, J W	Campbellcroft
Wilson, G E D	Weyburn, Sask	Yuill, B	Gilbert Plains, Man
Wood, G S	Toronto	Ziegler, H R	Brantford
Woodland, L A	Toronto		

## SECOND YEAR

Angus, L R	Toronto	Kirkpatrick, G M	Vancouver, B C
Basingthwaight, Miss M F		Kirkpatrick, T C	Toronto
	Sault Ste Marie	Kitchen, I D	Toronto
Beach, M L	Toronto	Laird, Miss M D	Toronto
Belt, T H	Toronto	Laird, R C	Toronto
Bone, Miss M E	Toronto	Large, G C	Toronto
Boyle, W G	Belwood	Lawson, F S	Toronto
Brooks, E F	Toronto	Leeder, F S	Battleford, Sask
Brown, J E	Niagara-on-the-Lake	Leef, C D S	Toronto
Brown, R F	Toronto	Lewis, L H	Oshawa
Brown, W G	Toronto	Lindzon, M	Toronto
Brownson, C A	West Belleville	Lucas, T A	Sarnia
Campbell, D M	Toronto	Lyons, J C	Cheltenham
Carswell, J A	Toronto	McCollum, J L	Toronto
Caswell, J W	Toronto	MacFadyen, D A	Toronto
Cleghorn, R A	London	McGillivray, J R	Hamilton
Craw, Miss C H	Fergus	MacKechnie, G S	Toronto
Cummings, E A	Thornbury	Mackechaie, H A	Vancouver, B C
Dawson, H S	Toronto	MacLean, K A	Harriston
Denoon, J W	Toronto	MacLean, M S	Toronto
Duff, G A	Drayton	McMurray, E M	Niagara Falls
Fisher, A J	Stratford	Macrae, H M	Victoria, B C
Gleeson, T H	Napanee	Master, W M	Windsor
Grafton, H F P	Barrie	Menzies, Miss I R	Toronto
Gray, K G	Toronto	Meredith, R H	Vancouver, B C
Greig, J W A	Seaforth	Moore, E A	Clarksburg
Guest, W A	Ottawa	Mullen, L M	Toronto
Haight, Miss R K	Waterloo	Muscovitch, H A	Toronto
Hall, Miss M E	Toronto	Narofsky, S	Toronto
Hall, M M R	Brampton	Paterson, J A	Ingersoll
Hall, W E B	Lindsay	Pollack, J	Toronto
Harvey, J M	Exeter	Price, F G	Toronto
Hawkins, S J	Toronto	Prior, J S	Coldwater
Healy, D E	Toronto	Reinhorn, A J	Toronto
Hethrington, H	Toronto	Robertson, H F	Toronto
Hills, W H	Toronto	Robertson, J R	Gravenhurst
Hoare, D S	Toronto	Roos, Miss P M E	Waterloo
Hookings, C E	Nelson, B C	Runstadler, Miss M	Toronto
Horkins, H A	Campbellford	Rykert, H E	Dundas
Hough, H B	Amherstburg	Shannon, J G	St Catharines
Hutner, L M	Toronto	Sharfatz, G	Hamilton
James, J W	Toronto	Sharp, Miss R C	Beaver Lodge, Alta
Johnston, J F A	Toronto	Shier, J W	Vancouver, B C
Johnstone, Miss R A	Chatham	Spackman, R H	St Thomas
Keenleyside, E A	Regina, Sask	Stanbury, R G	Campbellford
Kelly, J H	Collingwood	Stevenson, C K	Stroud
Kemp, D L	Forest	Stoddill, C G	Toronto
Kenrick, T D	Toronto	Thompson, Miss M J	Deseronto
Kilpatrick, O A	Toronto	Tickin, P A	Toronto

Name	Home Address	Name	Home Address
Tilley, A R	Bowmanville	White, R G	Moose Jaw, Sask
Turnbull, F A	Vancouver, B C	Williams, P E	Toronto
Wallace, W M	Toronto	Wilinsky, B	Toronto
Walwyn, J P	Weston	Woods, W L	Toronto
White, G B	Toronto	Young, A E	Toronto

## THIRD YEAR

Aberhart, W	Seaforth	Grant, R C	Toronto
Ackland, W E	Ottawa	Green, W M	Embro
Archibald, D A	Elora	Greey, P H	Toronto
Armstrong, J P	Ottawa	Hamilton, F B	Toronto
Armstrong, L T	Port Credit	Harnick, I	Toronto
Berry, B H	Toronto	Heffering, R J	Toronto
Bier, L B	Brantford	Hershev, J M	Toronto
Borrowman, R E	Toronto	Hilliard, Miss A M	Morrisburg
Bowers, N H	Massey	Hoffman, B	Toronto
Bronstein, N W	Toronto	Huddart, Miss V G	Toronto
Brown, J A	Regina, Sask	Hutton, D V	Brantford
Browne, W A	Toronto	Jackson, G H	Port Perry
Bull, H T	Holland Centre	Jeffries, C N	Toronto
Cairo, Miss M R	Toronto	Jones, A H	Toronto
Campbell, A J	Owen Sound	Kazdan, L	Toronto
Campbell, C A L	Toronto	Keith, W S	Toronto
Campbell, I P	Grand Valley	Kelly, J A	Long Branch
Cannell, D E	Port Carling	Killoran, V A	Peterborough
Case, G L	Toronto	Kinsman, R H	Hamilton
Chaukoff, I L	Toronto	Ladlaw, J B	Toronto
Chesney, W E	Burford	Lambert, A G	Beaverton
Clarke, L A	Toronto	Linton, F D	Port Credit
Colley, A K	Toronto	Little, W R	Trenton
Craven, A I	Guelph	Lloyd, P F	Brewer's Mills
Crowther, T A	Niagara-on-the-Lake	Macdonald, Miss I M	Markham
Curry, D	Trenton	McFarlane, G M	Saskatoon, Sask
Davidson, J H	Jarvis	McGibbon, K C	Toronto
Dillane, J G R	Newmarket	MacNicol, W T	Hamilton
Dinwoody, W A	Cookstown	MacNiel, A C	Oakville
Douglas, L H	Norval	McNiven, E L	Victoria, B C
Edwards, H E	Listowel	Macklin, L A	Goderich
Elliott, H R	Hamilton	Mark, E C	Hong Kong, China
Farmer, A W	St Catharines	Marritt, H D	Keswick
Ferguson, C R	Ft. El	Marshall, W P	Belleville
Ferrie, K E	Hamilton	Matheson, J E	Vancouver, B C
Fidler, K A	Toronto	Mitchell, D R	Oshawa
Finlayson, R A	Dutton	Montemurro, G A	North Bay
Fletcher, G M	Toronto	Morgan, A L	Lindsay
Flommerfelt, T E	Thorold	Morris, C G	Bowmanville
Forde, J H	New York, N Y	Mulock, Miss G E	St Catharines
Franks, W R	Regina, Sask	Murray, P J	Cayuga
Fraser, Miss I M	Hawkesbury	Noble, T D	Toronto
Gaudin, F H A	New Westminster, B C	O'Connor, Miss L	Toronto
Gordon, D M	Toronto	Park, W E	Fair Ground
Gordon, M K	Caledonia	Patterson, E B	Paris
Graham, J M	Goderich	Peacock, H J	Toronto
Granger, Miss H M	Creemore	Peeler, D B	Toronto
		Piper, R S	Fort William

Name	Home Address	Name	Home Address
Potter, C W	Southend	Taube, E L	Toronto
Pugsley, H E	Toronto	Teskey, S	Sarnia
Ririe, W B	Toronto	Thompson, J H	Grand Valley
Robertson, G S	Whitby	Thompson, Miss M S	Toronto
Robinson, J B	Toronto	Uren, J L	Toronto
Roderick, J H	Stoney Creek	Van Nostrand, F H	Vandorf
Rodgers, W H	Atlanta, Ga	Warren, W J	Weston
Rosen, N	Toronto	Webb, A J M	Hamilton
Rudolph, C R	Toronto	Weber, W H	Kitchener
Rutherford, G H	Blenheim	Webster, J W R	Smith's Falls
Saddington, R S	Arnprior	Westheimer, J R	Boston, Mass
Sarles, R M	Frankford	Wharton, G K	Cayuga
Scott, A W	Calgary, Alta	White, R A	North Bay
Sher, D	Toronto	Williams, J K	Beeton
Shute, E V	Windsor	Willisroft, B A	Owen Sound
Skinner, A M	Wilsonville	Wilson, A	Oakville
Snelling, C E	Welland	Wilson, J A	Thorold
Snyder, W B	Toronto	Wood, C R	Toronto
Stevens, E	Chesley	Wright, E N	Toronto
Stevens, G C	Dunham, Que	Wrong, N M	Aylmer West
Tait, C E	Toronto	Wyke, D A	Port of Spain, Trinidad, B W I
Tansley, E	Toronto		

## FOURTH YEAR

Aikins, L H	Wallaceburg	Coates, Miss L F	Vancouver, B C
Bain, T	Toronto	Coburn, W A	Nanaimo, B C
Balfour, G R	Toronto	Coulthard, H S	Chefoo, N China
Barclay, L T	Claremont	Cowie, G A	Toronto
Barker, J J	North Bay	Cumming, G S	Chatham
Barker, N J	Toronto	Deeton, W L	Toronto
Beckett, M B	Brantford	Derbyshire, W J	Weston Coyney, Stoke, England
Bell, E G	Copper Cliff	Dickson, B R	Thamesville
Bennett, D S	Toronto	Dorsey, M C C	Cookstown
Bennett, S R	St Catharines	Dowsley, G A	Mallorytown
Best, C J	Peterborough	Dreyer, J F	Toronto
Biehn, S L	Parry Sound	Duncan, A H	Toronto
Black, L W	Hespeler	Easton, N L	Ayton
Borron, R W	Toronto	Ely, C W	Beamsville
Boyd, J H	Toronto	Fairfield, A B	Beamsville
Brebnier, W B	Toronto	Farnsworth, J F	Cannifton
Breslin, R H	Toronto	Ferguson, J G	Toronto
Bright, W G	Warton	Fielding, E M V	Niagara Falls
Brintnell, F B	Colborne	Fine, J M	Toronto
Bull, F B	Brampton	Flahiff, E W	Paris
Burgess, J H	Ottawa	Fleming, Miss E M	Toronto
Burt, C F	Brantford	Fleming, F J	St Mary's
Butters, H L	Niagara Falls	Fowler, A C	Perth
Cain, M C	Huntsville	Fralick, F T	Thornhill
Cameron, H M	Ottawa	Gardiner, W J	Midland
Campbell, I	Toronto	Gies, A H	Hamilton
Campbell, J G	Toronto	Goodchild, S F	Toronto
Carr, C W	Thornton	Goodwin, J C	Toronto
Carson, W H	Chatsworth	Gordon, S D	Agincourt
Chaikoff, J	Toronto	Graham, C B	Oakwood
Clothier, W J K	Ottawa		

Name	Home Address	Name	Home Address
Guay, A J L	Edmonton, Alta	Mayne, J E	Drayton
Gung, E B	Victoria, B C	Miller, J M	Moose Jaw, Sask
Hain, C W	Toronto	Moir, H K	Toronto
Ham, A W	Brantford	Murdoch, D J	Markdale
Harvie, D A	Midland	Murray, L L	Guy's Hill, Jamaica
Hassard, C E A	Toronto	Murray, S S	Dundas
Hatfield, W H	Vancouver, B C	Nicholson, T F	Toronto
Hemond, C J	Windsor	Oakes, W A	Guelph
Henen, F R	Gananoque	O'Gorman, J T	Toronto
Hetherington, A E	Wingham	Ormerod, M J	Toronto
Higgs, W D	Albert Head, B C	Paul, H A	Haileybury
Hisey, R F	Creemore	Peart, H E	Burlington
Hobson, J P	Niagara Falls	Pember, F R	Toronto
Hooey, L	North Bay	Pratt, D W	Toronto
Hooper, L N	Little Britain	Reeve-Newson, T	Toronto
Houser, G F	Toronto	Robertson, R	Toronto
Howell, Miss H D	Welland	Robinson, Miss H S	Kleinburg
Hudson, L	Toronto	Robson, W D	New Westminster, B C
Huff, R G	Peterborough	Ross, H M	Vancouver, B C
Huggard, L H A R	Vancouver, B C	Ross, J R	Toronto
Hurwich, S B	Toronto	Ruby, R A	Kemptville
Hyland, H H	Toronto	Ryall, D B	Nanaimo, B C
Ireland, J A	Toronto	Scher, J N	Toronto
Irwin, D A	Toronto	Scott, R F	Toronto
James, A P R	Toronto	Shaver, C G	Ancaster
James, G	Vancouver, B C	Sidenberg, I I	Toronto
Jamieson, T J	Ohswegen	Silverthorne, L N	St Thomas
Jones, G H	Claremont	Silverton, T L	Toronto
Kelly, G C	Hamilton	Sinclair, G A	Toronto
Kennedy, A S	Beeton	Sinclair, J W	Regina, Sask
Kenney, W G C	Acton	Smith, A G	Toronto
Kyles, N B	Toronto	Smith, Miss F M	Glanford Station
Lang, L V	Kitchener	Smith, W E	Hamilton
Leaver, L R	Port Credit	Snitman, M F	Toronto
Le Drew, F	Toronto	Soskin, S	Toronto
Little, J L	Guelph	Sparks, M I	Toronto
Lively, F M	New Liskeard	Stahl, H F	Kitchener
Lowrey, H E D	St David's	Stahl, O J	Kitchener
Luckey, L E R	Toronto	Strebig, D L M	Toronto
McCallum, J D	Lloydtown	Struthers, J N P	Galt
McCannel, W A	Chesley	Stuart, K	Simcoe
McCombs, R D	Dunnville	Sullivan, J A	Toronto
McCormick, N A	Walkerville	Swart, H A	Simcoe
McDonald, D F	Sutton West	Sweet, T A	Hamilton
McDonald, P W	Colborne	Taube, N	Toronto
McGee, A R	Norwood	Teney, H F	Toronto
McGonigle, R H	Newmarket	Thaler, A F	Elmwood
MacLachlan, Miss S R	Toronto	Thomas, Miss M I	Toronto
McMullen, R E	Toronto	Usher, A M	Vancouver, B C
McNeely, Miss C A	Carleton Place	Vale, H E P	Toronto
Maguire, C E	Saskatoon, Sask	Verner, T B	St Catharines
Manaceveth, B A	Toronto	Vivian, R P	Barrie
Manaceveth, G	Toronto	Waddington, H	Brantford
Mason, L W	Simcoe	Watson, J L	Toronto
Mason, P W	Simcoe	Watt, G L	Brantford
Matheson, J A	Granum, Alta		

Name	Home Address	Name	Home Address
Weber, C R	Windsor	Whittier, Miss C L	Elmsdale, Hants Co, N S
Welsh, W K	Oakland	Wilcox, L F	Beeton
Whaley, D W	Toronto	Wilkins, W R	Toronto
Wharton, T V	Cayuga	Wilson, A K	Regina, Sask
White, A W M	Chatham		

## FIFTH YEAR, SIX YEARS' COURSE

Abell, R S	Owen Sound	Heaton, T G	Toronto
Adams, J H F	Toronto	Heggie, D C	Brampton
Alexander, H J	Norwich	Henderson, D N	Toronto
Amyot, G F	Ottawa	Hodd, D G	Hamilton
Armstrong, J C	Ottawa	Horton, C B	Toronto
Baker, F E	Belleville	Hume, T W K	Toronto
Ball, W M	Toronto	Hurst, D D	Fullarton
Beasley, J H	Toronto	Jackson, J E	Auburn
Beatty, S R	Thomasburg	Jaquith, L E	Toronto
Best, C H	Toronto	Johnston, W C	Exeter
Bicknell, H E	Toronto	Kelly, A B	Toronto
Birch, J R	Calgary, Alta	Kelly, A D	Toronto
Boyd, J	Hamilton	Knowlton, C E	Toronto
Brady, F A	Toronto	Landsborough, A M	Port Credit
Brillinger, F	Stouffville	Lantsevitsky, N	Toronto
Brummitt, R B	Vancouver, B C	Laxton, J E	Toronto
Cameron, J M	Toronto	Lyon, L A	Oakville
Campbell, D G	Toronto	McCarthy, K C	Toronto
Carscadden, W G	Lindsay	McCartney, T G	Bethany
Catherwood, W L	Hagersville	McFadden, J L	Victoria, B C
Cheney, Miss M J	Ottawa	MacGowan, G A	Toronto
Chu, P Y Y	Vancouver, B C	McGregor, G W	Inglewood
Clark, D V	Toronto	McIntosh, J S	St Catharines
Couch, J H	Strathroy	McKay, D R	Stayner
Coutts, G S	Bradford	Mackay, R P	Toronto
Cray, J F	Guelph	MacLean, D L	Harriston
de Souza, M G	New Amsterdam, Berbice, B G	McLean, G C	Collingwood
Deyell, J S	Peterborough	May, C R	Melfort, Sask
Dill, J L	Dublin	Menzies, F H	Burk's Falls
Duncan, Miss J R	Chatham	Middlebro, J P	Owen Sound
Fair, G L	Toronto	Millar, J W	Castleton
Falconer, J G	Toronto	Miller, W H	Toronto
Fenton, W K	Toronto	Mills, Miss G	Toronto
Fielden, E C	Toronto	Milne, J E	Elmwood
Forrest, S J	Toronto	Milne, R E A	Niagara Falls
Forster, Miss M B	Corunna	Mitchell, C L	Victoria, B C
Fraser, Miss F H	York Mills	Mitchell, H D	Victoria, B C
Gerow, H G	Colborne	Monaghan, H J	New Hamburg
Graham, W L	Galt	Muir, W S	Niagara Falls
Gray, H M	Toronto	Murchison, E B	Cambray
Gray, T W A	Millbrook	Naden, J R	Victoria, B C
Green, J	Toronto	Nicholson, Miss M A	Lucknow
Greer, H J	Port Coquitlam, B C	Noble, E C	Toronto
Hacking, L C	New Westminster, B C	Paterson, J C	Sarnia
Hakstian, A	Brantford	Patry, F L	Toronto
Hamilton, F C	Toronto	Perry, Miss F E	Victoria, B C
Hare, M A	Britannia Heights	Plewes, F D	Toronto
		Potter, H F	Clinton

Name	Home Address	Name	Home Address
Riley, R C	Welland	Strangway, W E	Petrolia
Roach, C J	Vancouver, B C	Stringer, F H	Dawson, Y T
Robinson, L E	Aurora	Sutherland, L J	Holland Centre
Ross, J	Toronto	Syer, G E	Frazerville
Rudd, M S K	Foleyet	Teasdale, H R	Massey
Rumball, W C	St Catharines	Trick, H W	Oshawa
Russell, W H	Dhar, Central India	Vine, G D	London
Schwab, J	Toronto	Vokes, H A S	Toronto
Seltzer, E I	Toronto	Walker, J E	New Westminster, B C
Senn, J N	Caledonia	Westman, E R	Toronto
Sher, Miss L	Toronto	White, C O	Toronto
Shipley, M A	Clinton	Wiley, W R D	Toronto
Singer, Miss M	Toronto	Williamson, F M	Priceville
Smith, R G	Hickson	Williamson, G S	Toronto
Soanes, E P	Aurora	Wilson, C H	St George
Steele, T M	Stratford	Wilson, Miss M E	Toronto
Stulman, I W	Toronto	Wolfson, H	Toronto
Strain, F A	Gore Bay		

## FIFTH YEAR, FIVE YEARS' COURSE

Aitchison, D B	Hamilton	Code, D B	Ottawa
Allen, D G	Lakewood, Ohio	Cousland, P A C	Toronto
Anderson, O W	Sundridge	Coyne, D R	Leamington
Armstrong, B C	Calgary, Alta	Currie, G C	Little Current
Atkinson, W L	Guelph	Currie, M A	Little Current
Baker, Miss F M	Toronto	Dales, C W	Drayton
Barlow, H S	Toronto	Dalrymple, Miss L A	Waskada, Man
Barr, Miss C A	Merlin	Day, A	Orillia
Bell, A M	Priceville	d'Easum, L G C	New Westminster, B C
Bigelow, L H	Bethany	Delamere, H D	Toronto
Black, G N	Springfield	Dinniwel, O C	Wia-ton
Borland, T H	Innerkip	Duncombe, K L	Waterford
Boyden, R W	Ottawa	Dunlop, R W	Kintore
Briant, T E	Toronto	Dyer, H F	Allandale
Bronstein, Miss R	Toronto	Elliott, G A	Nelson, B C
Brown, G W	Lyn	English, S S	Hamilton
Brown, M H	Kingston	Everist, W C	Toronto
Buchanan, W P	Galt	Fatum, O	Gowanstown
Buckle, H R	Niagara Falls	Faulkner, Miss I G	Duntroon
Bull, F L	Weston	Fawcett, J T	Mitchell
Burridge, Miss M F	Victoria, B C	Ferguson, T G	Toronto
Byrne, U P	New Westminster, B C	Fetterly, Miss M E	Winchester
Caldwell, W S	Ottawa	Finlay, H H	Yorkton, Sask
Campbell, G E	Toronto	Fleming, D R	New Liskeard
Campbell, S M	Toronto	Francis, C M	Toronto
Caple, H H	Vancouver, B C	Gauld, R L	Minuco
Carmichael, Miss A I	Peterborough	Gebirtig, T	Toronto
Challener, R E S	Toronto	Gilchrist, R A	New Westminster, B C
Chant, Miss E H	Toronto	Glenney, W R	Little Britain
Charlton, W H M	Weston	Gordon, G	Toronto
Chisholm, C A	Antigonish, N S	Gossage, C D	Toronto
Chisholm, G B	Oakville	Graham, R W	Toronto
Clark, N S	Toronto		
Clifford, C H	Toronto		
Clysdale, E S	Mooretown		

Name	Home Address	Name	Home Address
Gray, F E	Listowel	Madoo, S C V	Toronto
Gray, W G	Courtright	Maloney, F G H	Toronto
Greenberg, J H	Toronto	Maltby, E J	W Toronto
Griffin, B M	Coldwater	Meehan, Miss G B	Rochester, N Y
Grimmett, Miss K E	Edmonton, Alta	Meekison, D M	Vancouver, B C
Grove, J H	Toronto	Micheil, G E	Toronto
Hall, J L	Phelpston	Mitchell, H C	Toronto
Hames, C F W	Aurora	Montgomery, R C	Toronto
Hardy, A W	Oakwood	Mount, H T R	Toronto
Hawkins, W D	Toronto	Munro, F W	Toronto
Heaslip, P T	Dundas	Murphy, W M	Owen Sound
Heath, T R	Orton	Mustard, J M	Uxbridge
Henderson, W W	Toronto	Myles, E R	South Woodslee
Henry, A T	Toronto	Neelin, W E E	Richmond
Hcnry, G G	Markdale	Neilson, J R	Stratford
Herold, R E	Shakespeare	Nichols, T R	Stratford
Hershey, J H	Toronto	Noble, J H	Toronto
Hilliard, H K	Burk's Falls	O'Neill, C N	Clandeboyne
Hodgins, B A	London	Orr, Miss J S	Toronto
Hunter, Miss D L	Toronto	Owens, Miss M	Grenville, Que
Hurlburt, W E	Toronto	Page, S U	Toronto
Hynes, B J	St Catharines	Papish, A	Toronto
Irwin, W J	Markham	Parry, G O	Toronto
Janes, E C	Watford	Paton, W M	Toronto
Jennings, H N	Hagersville	Perkin, F S	Toronto
Johnstone, B I	Tara	Phillips, M	Dundalk
Junkin, C I	Toronto	Pinchin, A H	Toronto
Keener, W C	Kitchener	Pratt, C H	Chesley
Keith, H M	Toronto	Proud, R H	Toronto
Kenyon, B B	Blair	Purdy, A D T	Toronto
Kerr, H T	Toronto	Richards, C A	Millbrook
Laing, J W	Wyevale	Richer, Miss F	Montreal, Que
Lang, H B	Toronto	Ridge, W W	Hamilton
Latimer, R H	Beaverton	Robert, J T	Chatham
Liddy, F J	Toronto	Robinson, J T H	Belgrave
Long, E C	Listowel	Rogers, Miss K	Toronto
McAlister, H R	Hamilton	Ross, J C	Zealandia, Sask
McAteer, J	Toronto	Rowley, A E	Toronto
McBain, R W	Hamota, Man	Rynard, W M W	Zephyr
McClinton, J	Goderich	Sands, G E	Corunna
McCosh, R A	Kincardine	Scarlett, E P	Portage la Prairie, Man
MacDonald, N	Atherley	Scott, D E	Toronto
MacDonald, P G	Orillia	Scott, F J	Barrie
MacDonald, T A	Deloraine, Man	Sexsmith, E L	Ingersoll
Macdonell, R V	Dalhousie Mills, Que	Sharpe, W C	N Toronto
McGarvey, M R	Petrolia	Shaver, E O	Toronto
McGill, W L	Toronto	Shaw, E S	Guelph
MacKay, A F	Truro, N S	Sinnott, J A	Hamilton
McKee, W A	Millbank	Skipper, S C	Toronto
McKenzie, R D	Hanley, Sask	Sloan, S G	Chatham
McKinnon, A L	Guelph	Smylie, C H	New Liskeard
McLellan, T G	Toronto	Spaulding, H E	Aurora
McLeod, A M	Kincardine	Spratt, E H	Ottawa
McMurray, W J	Niagara Falls	Standen, C W	Bowmanville
		Stewart, D W	Toronto
		Stokes, L S	Mount Albert



Name	Home Address	Name	Home Address
Stone, R S	Chatham	Volinsky, I R	Toronto
Stott, S J	Toronto	Waddell, R R	Hamilton
Suffel, S C	Smith's Falls	Wansbrough, R M	Grand Valley
Sykes, A V	Calgary, Alta	Warner, O M	Toronto
Taylor, W H	Guelph	Watson, G H	Port Credit
Temes, J H	Toronto	Weaver, R T	Toronto
Temes, S	Toronto	Welsh, H E	Morra
Thompson, C E	Stoney Creek	Westcott, D B	Collingwood
Thompson, R A	Zephyr	White, C C	Chatham
Thompson, T W	Port Credit	White, Miss K M	Moose Jaw, Sask
Truax, A J	Toronto	White, M F	Lindsay
Truscott, R S	Hamilton	Wilcox, F A	Toronto
Tyrrell, J D	Hamilton	Wildfang, E J	Rockwood
Urquhart, A M	Oakville	Wilkins, A R	Toronto
Urquhart, R W I	Moose Jaw, Sask	Williams, J E	Port Credit
Vanderburgh, A W	West Summerland, B C	Williams, W O	Cardinal
Veale, W T J	Bowmanville	Wilson, W H	Toronto
		Wylie, W A	Markham

## OCCASIONAL STUDENTS

MacKay, H H

Goderich

## GRADUATES REGISTERED FOR THE DIPLOMA OF PUBLIC HEALTH

Gill, D G, M B	Victoria Harbour	Pequegnat, L A, M B	Toronto
Mitchell, W A R, M B	Toronto	Riddell, A R, B A, M B	Toronto

## GRADUATES REGISTERED FOR THE DEGREE OF BACHELOR OF SCIENCE

Allan, F N, M B	Wroxeter	Mackenzie, W G, M B	Toronto
-----------------	----------	---------------------	---------

## GRADUATES REGISTERED FOR POST-GRADUATE STUDIES

Culbertson, N E, M B		Struthers, R G, M B	Honan, China
Jeter, A J, M B	Whitehorse, Yukon Clinton	Topping, A H, M B, B S	Toronto

## SUMMARY

First Year	100
Second Year	105
Third Year	138
Fourth Year	181
Fifth Year (Six Years' Course)	130
Fifth Year (Five Years' Course)	212
B Sc Med	2
D P H	4
Post Graduates	4
Occasional	1
	<hr/> 877

## FACULTY OF APPLIED SCIENCE AND ENGINEERING

## FIRST YEAR

Name	Home Address	Name	Home Address
Baker, G F	Toronto	Howell, J E	Welland
Ballachey, A G	Brantford	Hunter, A F	Toronto
Bentley, W A	Toronto	Irwin, A J	Toronto
Bertram, R E	Toronto	Jackson, E D	Toronto
John, L J	Guelph	Jones, J H M	Sault Ste Marie
Boles, H W	Toronto	Jones, R E	New Wilmington, Pa
Brooks, H G	Toronto	Kennedy, G F	Georgetown
Bryan, H H	Harriston	Kilkenny, J M	Queenston
Burns, W G	Port Credit	Killoran, J L	Peterboro
Burnside, R J	Madoc	Ladlaw, D S	Toronto
Carrick, J A	Toronto	Lalor, Miss E M	Toronto
Carroll, C J G	Ottawa	Laughlin, W H M	Toronto
Carter, C A	Hamilton	Loenzen, I	St Catharines
Chisholm, W D A	Oakville	MacGill, Miss E M G,	Vancouver, B C
Clapp, D M	Port Credit	McCrone, D G	Toronto
Connery, J H	Toronto	McFarlane, J W	Toronto
Connor, G R	Campbellford	McIntosh, W R	Toronto
Cook, W L	Toronto	Moore, H F	Toronto
Courtnice, H A	Toronto	Morris, D T	Gimsby
DeLaplante, G L	Owen Sound	Nichols, W A	Toronto
Dibbon, W L K	Toronto	Overell, H M	Hamilton
Eastwood, D R	Bonar Law	Parker, G H	Kitchener
Edmonson, C B	Welland	Parkinson, C A	Toronto
Enoury, W G	Toronto	Perley, E C	Wolseley, Sask.
Farrell, J B	Toronto	Petrogannus, K Y	Toronto
Feely, M L R	Brantford	Phipps, A R	Richmond Hill
Fhntoff, A F	Oshawa	Pouncett, F R H	Toronto
Ford, J S	Toronto	Quance, R P	Delhi
Fraser, J H	Streetsville	Raymore, W G	Toronto
Frye, D	Wallaceburg	Richardson, L A	Peterboro
Galmberth, G M	Toronto	Richardson, R E	Toronto
Gardner, J K	Barrie	Rickard, P A	Waterford
Garwood, J R	Toronto	Roberts, G L B	St John's, Nfld
George, J W	Dorchester	Rochester, R B	Toronto
Granton, T J	Paris	Rowland, D A	Toronto
Grass, E C	Columbus	Russell, B A	Charing Cross
Gray, G M	Toronto	Russell, J H P	Toronto
Grogan, K C	Brampton	Ryan, J H	Orillia
Grundy, E	Toronto	Salter, C J	Chnton
Haggert, G J	Ingersoll	Sanderson, E L	Toronto
Hanks, R S	Toronto	Sankey, C A	Belleville
Harrington, J C	Toronto	Scarth, W M	Virden, Man
Hastings, R M	Galt	Scott, N	Toronto
Hayward, R E G	Haileybury	Sheak, H F M	Toronto
Heald, C G	Toronto	Sherk, R M	Humberstone
Hilber, R G	Toronto		
Holden, G A	Toronto		

Name	Home Address	Name	Home Address
Shields, W F	Innerkip	Thompson, C P	Toronto
Shore, L E	Meaford	Thompson, M O	Atwood
Shortreed, J	Toronto	Thompson, W	Belton
Sievert, F A	Toronto	Vercoe, F H	Toronto
Simmons, W R	Bracebridge	Vernon, H	Toronto
Sinclair, A E	Woodstock	Watson, W A	Toronto
Sinclair, S K	Toronto	Weaver, W E	Hespeler
Sipes, A M	Iroquois	Webber, R I	Zurich
Smith, G B	Toronto	Whaley, W	Harriston
Smith, H M	Sault Ste Marie	White, W E	Toronto
Smith, T B	Toronto	Wideman, N E	Markham
Somerville, A A	Orono	Wilkinson, A E	Toronto
Spittal, W R	Toronto	Willard, E G	Hamilton
Stanley, P G	Toronto	Wilson, A M	Hamilton
Stevenson, A W B	Bradford	Wilson, R J G	Toronto
Sutherland, W D	Toronto	Wright, D	Toronto

## SECOND YEAR

Adams, W D	Toronto	Gaudin, E L	Toronto
Allan, E A	Meaford	Garnham, F T	Tillsonburg
Allen, N E	Ingersoll	Geddes, M	St Thomas
Anderson, W	Stratford	Gooderham, R M	Meadowvale
Angus, W M	Ft William	Gordon, M B K	Dixie
Armour, C A V	Toronto	Grant, A G	Toronto
Auld, J R	Beamsville	Griffin, K	Toronto
Auld, W F	Beamsville	Griffith, H D	Toronto
Bailey, E T W	Lakefield	Grime, L	Royal Oak, Mich
Ballard, A H	Niagara Falls	Hanna, A L	Port Carling
Banwell, S B	Sarna	Haultain, C F	Port Hope
Barnes, L W	Toronto	Hawken, J D	Wallaceburg
Barr, F G F	Toronto	Hawkins, R M	Toronto
Barrington, J D	Toronto	Heron, B	Toronto
Beam, D C	Stevensville	Hewitt, H L	Toronto
Beck, J B	Merritton	Hobden, B J	Toronto
Bicknell, A B	Toronto	Hughes, G J	Drayton
Brown, A	Walkerville	Hyde, H	Cobalt
Druce, C F W	Toronto	Irvin, W A	Toronto
Cash, E A	St Thomas	Irwin, H S	Toronto
Chamberlain, E E	Port Credit	Jeffrey, J M	Toronto
Claridge, R C	Toronto	Jennings, G L	Toronto
Clark, R M	Toronto	Johnson, M H	Humber Bay
Clarke, W R	Oshawa	Jones, S M	Brantford
Chorolsky, E	Regina, Sask	Kadota, K.	Toronto
Complin, E R	Toronto	Kellam, B	Toronto
Davies, E G	Toronto	Kelman, J A	St George
Dick, J P	Weston	Kimbell, H P	Moose Jaw, Sask.
Dickson, A D	Campbellford	Knowles, R E	Toronto
Douglas, A J	Cayuga	Kribs, W H	Hespeler
Dow, D W	Enderby, B C	Lally, C K	Barrie
Duncan, J P	Brantford	Leitch, K D	Toronto
Fisher, R A	Toronto	Lem, F Y	Toronto
Fox, J H	Toronto	Limoge, J S	Hamilton
Fraser, K W	Pembroke	Loughheed, E H	Toronto

Name	Home Address	Name	Home Address
McColl, F H	Brighton	Roper, J B	Ottawa
McCullough, J R	Chesley	Ruggle, H P	Toronto
McCullough, W H	Chesley	Russell, G A	Hamilton
McGregor, H R	Toronto	Sampson, F A	Toronto
McGuire, C H	Cornwall	Sangster, F A	Stouffville
McLaughlin, H M	Sutton West	Saunders, H E	Oshawa
McMartin, C A	Barrie	Smythe, R E	Merritton
Magill, J J	Brampton	Soucy, C I	Toronto
Marshall, O C J	Toronto	Sudden, E A	Galt
Martin, W C	Toronto	Sumner, N S	London
Matthew, I D	Georgetown	Sutton, A F	Dorchester
Menzies, J R	Farrington Hill	Suzuki, S	Tokyo, Japan
Morrison, C A	Toronto	Switzer, H R	Toronto
Noble, J S	Cranbrook, B C	Tate, G H	Newmarket
Norman, H L	Toronto	Thom, D S	Pembroke
Nugent, C E	London	Thompson, W L	Belmont
Ormerod, A G	Toronto	Tuck, H C	Toronto
Paisley, R S	Toronto	Tuck, A E	Freeman
Patterson, F H	Niagara Falls	Walters, S	Thorold
Paquette, J A	Peterboro	Warner, F R	Thorold
Pitt, C B	Collingwood	Weiland, R W	Galt
Pollock, C A	Kitchener	White, J A	Toronto
Quinlan, H D	Barrie	Wigle, A	Amherstburg
*Ray, W G	Toronto	Wilcox, B B	Beeton
Riches, C H	Streetsville	Wilson, R C	Port Hope
Robertson, R M	Toronto	Wiren, R C	Russia
Robins, C P	Toronto	Witherell, C W	Wallaceburg
Roelefson, F L	Galt	Yull, S W	Brussels
Rogers, G S	Bramford		

## THIRD YEAR

Ahara, L D	Toronto	Chipsham, W B	Sparrow Lake
Allan, J C	Toronto	Coates, W H	Seaforth
Atkinson, C S	Haileybury	Connolly, E F	Collingwood
Baker, M H	Goderich	Coppin, C A	Black Rock, Barbadoes
Beaman, A E	North Gower	Coulter, W W H	Toronto
Beatty, G A	Cannington	Crane, W A	Aylmer
Bingham, T E	Georgetown	Crossgrove, G M	Copper Cliff
Booth, C A	Toronto	Curry, G R	Toronto
Boyd, O H	Toronto	Cuthbert, A B	Lindsay
Boyes, J W	Hamilton	Davidson, P C	Toronto
Bridge, J F	Kincardine	Dickenson, F R	Toronto
Brown, H R	Toronto	Dillane, C W	Kemptville
Browne, L M	Toronto	Domme, E C	Ayton
Bruce, D	Tavistock	Dowler, E A	Galt
Burbank, J D	Toronto	Dunbar, W H	St Marys
Buchmann, K E	Toronto	East, L A W	Stratford
Burpee, L H	Ottawa	Fawcett, W L	Sarnia
Cameron, W J	Toronto	Feick, C G E	Warton
Campbell, W J	Ridgetown	Flett, D D	Toronto
Carruthers, W R	Toronto	Fowle, G H	Belleville
Cathcart, S V	Courtright	Frampton, A H	Toronto
Chowen, W R	Clinton	Goldstein, A	Toronto

\* Michaelmas Term

Name	Home Address	Name	Home Address
Gordon, C W	Winnipeg, Man	Patterson, T M	Kincardine
Graham, T C G	Inglewood	Pearen, J E	Toronto
Griffith, B C	Toronto	Pearson, J W	Toronto
Harrop, A C	Calgary, Alta	Peart, A W M	Aldershot
Hill, A J	Toronto	Pentelow, H M S	Guelph
Horwood, E C	Toronto	Perry, S W	Owen Sound
Hubbard, E B	Los Angeles, Cal	Phelps, M W	Merrittton
Hunter, L N	Brampton	Pike, J G	Todmorden
Inglis, G F	Hamilton	Piper, R L	Calgary, Alta.
Ings, J H	Vancouver, B C	Polack, D L	Toronto
Jackson, T W	Toronto	Potter, C E	Toronto
Jeckell, A W	Dawson, Yukon	Pritchard, W R	Toronto
Jenkins, T H	Toronto	Ratz, H G	Toronto
Kennedy, J W	Hamilton	Rowland, S A	Mount Albert
Kerr, R S	Toronto	Rumble, G	Hillsdale
Kilmer, G E	Southampton	Ryan, J W	Georgetown
King, V B	Woodstock	Ryrie, J	Toronto
Kirn, K A	Peterboro	Shaw, F A C	Wallaceburg
Leadbetter, J B S	Toronto	Shaw, W U	Manitowaning
Lee, D A S	Toronto	Shurly, E C	St Catharines
Legge, T A T	*Oak Ridges	Smart, G W	Toronto
Lillic, V B	Toronto	Smith, H C	Toronto
Lindsay, J	Georgetown	Smyth, A R	Toronto
Little, E M	Iroquois Falls	Somerville, K R	Wanstead
Lloyd, D S	Sault Ste Marie	Sorby, W O	Guelph
Lloyd, W G	Hamilton	Stephens, G	Clarkson
McBride, R L	Iona Station	Steele, W H	Toronto
McBrien, R E	Peterboro	Strickland, V D'E	Hamilton
McColl, J A	Toronto	Sullivan, G B	Guelph
McKenna, W G G	London	Takaba, S	Shimane Ken, Japan
McMaster, W D	Hamilton	Tanton, J F	London
McNab, J B	Gravenhurst	Taylor, R E	Toronto
MacEwen, P B	Craik, Sask	Teagle, R W	Toronto
MacKenzie, W J	Port Robinson	Tove, A M	Toronto
Maclean, C	Napanee	Tribble, G B	Bolton
Macpherson, N E	Cornwall	Trotter, H	Calgary, Alta
MacQueen A J F	Sault Ste Marie	Turnbull, A D	St Marys
Manuel, F R	Toronto	Turner, W I	Toronto
Mason, H R	Toronto	Van Horne, C H	St Thomas
Maxwell, J O	St Marys	Voaden, G H	St Thomas
Melick, D L	Dunnville	Waines, R T	Toronto
Miller, H	Regina, Sask	Wait, E B	Ottawa
Millican J F	Medicine Hat, Alta	Wallis, F J	Clinton
Milne, F J	Belton	Watson, F W	Elmira
Milne, J M	Belton	Wells, T H	Waterloo
Morton, A D	Oakville	Wellwood, F E	Richmond Hill
Mueller, T G	Toronto	Whatmough, F R	Stratford
Murphy, H T	Brookfield, N S	White, P S	Toronto
Nichol, W E	Brantford	White, W A	Toronto
Noonan, W H	Toronto	Whitson, D D	Toronto
Osburn, M P	Batteaux	Whitton, H G G	Toronto
Papst, H W	Amherstburg	Wright, W E	Cadogan, Alta
Parker, K F	Humberside	Wyatt, D	Toronto

## FOURTH YEAR

Name	Home Address	Name	Home Address
Adams, H C	Lindsay	Erwin, R B	Waterford
Adamson, J C	Humberside	Fawcett, W W	Bracebridge
Agnew, E A	Toronto	Findlater, J R	Ayr
Almond, J R	Toronto	Firth, H E	Brampton
Archibald, T A	Woodstock	Forward, F A	Ottawa
Armstrong, G C	Warkworth	Franks, S T	Regina, Sask
Baker, H N	Toronto	Good, E F	Blair
Barbour, A D	Toronto	Gordon, R A	Wallaceburg
Barley, E B	Toronto	Grabill, D L	Toronto
Baxter, L H	Hamilton	Gray, K C	Coldwater
Baxter, W J F	Niagara Falls	Greenwood, A H	Palmerston
Bayley, C H	Bridgetown, Barbadoes	Greey, S M	Toronto
Beament, T G B	Ottawa	Grenzebach, S L	Woodstock
Beattie, J	Galt	Griesbach, R J	Collingwood
Becker, W A	St Thomas	Haggans, H H	Toronto
Beecroft, G W	Toronto	Hall, J L	Bridgewater, N S
Bell, W T A	Hensall	Hamilton, F W	Hamilton
Berner, G T	Toronto	Hammond, H J	Toronto
Boswell, F B	Toronto	Hardcastle, S	Toronto
Breuls, C P	Sutton West	Harman, W J	Zephyr
Brittain, C L	Toronto	Hendershot, R W	Kingsville
Buck, L G	Brantford	Henderson, G G	Toronto
Campbell, A G	Toronto	Heyland, K V	Toronto
Campbell, L D	King	Horning, A G	Toronto
Campbell, W H	Toronto	Ickler, C H	Chesley
Capel, A J	Collingwood	Ingersoll, L H	Woodstock
Carp, M	Toronto	Jackson, L C	Brussels
Carswell, W E	Toronto	Jaques, C A	Woodstock
Catto, C E	York Mills	Joy, C B	Toronto
Chadwick, A R	Toronto	Keefer, R H	Toronto
Chambers, H J A	Toronto	Keith, W H	Newmarket
Chute, G M	Toronto	Kerr, R B	Brantford
Clark, H S	Toronto	Kingsmill, C G	Ottawa
Clark, W H D	Toronto	Kingston, T M S	Toronto
Coleman, E M	North Bay	Laine, D	Toronto
Collison, L S	Leamington	Langton, J M	Toronto
Colman, A R	Toronto	Lappin, W D	Toronto
Connors, W M	Smiths Falls	Laurie, R M	Hamilton
Connolly, H J	Toronto	Laurie, W L	Agincourt
Cooper, W C	Clinton	Lawson, A W P	Leaside
Coulter, S L	Windsor	Littlejohn, E	Toronto
Cowan, W R	Toronto	McCulloch, H L	Galt
Davis, C R	Welland	McDowell, W O	Toronto
Davis, F R J	Toronto	McTavish, D N	Simcoe
Dean, G F	Toronto	McIntosh, H A	Winnipeg, Man
Doherty, A H	Meaford	McKillop, V A	West Lorne
Dow, J A	Toronto	McPhail, A L	Galt
Drummond, J M E	Toronto	MacQuarrie, E M	Sault Ste Marie
Dymond, J M	Toronto	MacQuarrie, J D	Harrow
Elder, J G	Toronto	McVicker, P	Toronto
Elliott, W F	Mitchell	Matson, B C	Toronto
Elliott, W K	St Thomas	Maus, J H	Paris
Emerson, T R	Toronto	Meikle, M	Midland

Name	Home Address	Name	Home Address
Miller, W H	Galt	Sneyd, C S	Preston
Mitchell, J H	Toronto	Stevens, E C	Toronto
Moffatt, B F	Weston	Stoll, W H	Nottawa
Moon, A M	Warton	Story, R A	Claremont
Morton, C O	Toronto	Stuart, A F	Ottawa
Mueller, E K	Hamilton	Switzer, R H	Toronto
Muirhead, S R	Regina, Sask.	Take, P H	Toronto
Nettleton, C A	Toronto	Taniyama, S	Miyozaki, Japan
Norman, R M	Galt	Taylor, J C	Toronto
Osbourne, W A	Donegal, Ireland	Thomson, G A	Toronto
Patience, A M	Toronto	Thomson, J M	St Catharines
Pedder, J F	Trout Creek	Turner, H E	Brantford
Porter, W J	Powasson	Waite, G G	Colborne
Pugsley, H J	Kitchener	Wales, C C	Toronto
Ratchiffe, L C	Oshawa	Walton, W R	Toronto
Rattle, C H	Milliken	Watson, W W	Port Hope
Reid, W J W	Cardale, Man.	Welsh, D T	Hamilton
Robertson, G H	Toronto	West, G R	Northwood
Robinson, F H	Toronto	Whiteside, J J	Little Britain
Rowat, G H	Toronto	Williams, R E	Toronto
Russell, N E	Dhar, Central India	Williamson, J A	Toronto
Scott, G D	Claremont	Willard, M V	Toronto
Sharpe, C T	Toronto	Wilson, F E	Toronto
Shublev, L K	Haileybury	Wolsey, M	Toronto
Shields, S	Ft Wilham	Woodburn, C	Toronto
Simpson, W L	Elmvale	Yates, W S	Goldenburgh
Sirrs, R. R	Toronto	Yeats, F B	Stirling
Sitzer, I K	Milton	Young, C M	Toronto
Smith, V G	Toronto	Zimmerman, A H	Hamilton
Smith, W M	Saskatoon, Sask.		

## SUMMARY

First Year	124
Second Year	127
Third Year	150
Fourth Year	165
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## ONTARIO COLLEGE OF EDUCATION

STUDENTS REGISTERED FOR ORDINARY HIGH SCHOOL AND  
SPECIALISTS' CERTIFICATES

Name	Home Address	Name	Home Address
Addison, Miss L M	Toronto	Connal, Miss M E	Peterborough
Affleck, W E	Dutton	Courtage, Miss E G	Brantford
Alexander, Miss E A	Woodstock	Cox, S H J	Watford, England
Ansley, J W	Regina, Sask	Cox, Miss V M	Leamington
Arosemena, Miss I M	Chatham	Craig, Miss M E	North Gower
Ashcroft, C C	York Mills	Crawford, Miss G M	Brampton
Avery, C L	Toronto	Cresswell, Miss J R	Martintown
Bailey, Miss E C	Toronto	Cronk, Miss E E	Pickering
Bailey, K L G	Toronto	Cryan, W C	Stratford
Bailey, Miss M G	Arner	Cummings, Miss B V K	Ottawa
Baird, R F S	Kingston	Curtin, L F	West Monkton
Baker, Miss L V	Whitby	Cuthbertson, J A	Perth
Baker, V E	Toronto	Davcy, S H	Meaford
Ball, Miss K	Harriston	Davidson, Miss M E E	Prescott
Bannister, Miss E F M	North Bay	Davis, Miss P M	Mallorytown
Bartlett, F L	Toronto	Day, D J	Toronto
Bastedo, J B	Bracebridge	Day, Miss K	Toronto
Beamer, L H	Flint, Mich	Dean, Miss C R	Toronto
Beaupre, F C	Brantford	Delahay, Miss H F	Ottawa
Beers, Miss A E	Belfountain	Derbyshire, Miss E W	Kingston
Bell, H B	Georgetown	Dickson, F W R	Guelph
Bergoine, Miss D I	Walkerville	Doole, Miss A I	Toronto
Boyd, D W	Russell	Dowson, Miss E L	Toronto
Boyle, Miss B E	Toronto	Drummond, H	Toronto
Brabazon, Miss B K	Lucan	Dunbar, Miss A	Newington
Breckon, S S	Toronto	Duthie, Miss L	Toronto
Brett, Miss E V	Toronto	Eakins, Miss B	Hatchley
Brink, J E	Woodstock	Eberlee, T H	Dresden
Brock, Miss P M L	London, England	Edwards, Miss M	Ottawa
Brogden, R C	Stratford	Elgie, Miss A C	Sault Ste Marie
Brubacher, C S	Kitchener	Elliott, O C	Toronto
Burns, Miss M	Oshawa	Emerson, Miss D M	Weston
Cameron, Miss J T	St Thomas	Evans, E S	Clinton
Cameron, Miss M	Regina, Sask	Ewan, Miss M E	Toronto
Campbell, Miss H C S	Toronto	Fallis, N R	Toronto
Carslake, C H	Toronto	Fairar, Miss P I	East Farnham, Que
Carter, Miss L A	Pictou	Ferguson, D H	St Thomas
Carthy, Miss H E	Toronto	Ferguson, Miss M B	Galt
Chambers, F W	Hamota, Man	Fife, Miss G M	Peterborough
Chambers, Miss H G	St Marys	Flieger, Miss A L	Chatham, N B
Charlesworth, Miss H M	Iroquois	Fraser, Miss A B	Vernon
Chisholm, Miss E M	Toronto	Fried, Miss M H	Toronto
Choquette, F	Ottawa	Frise, H A	Brighton
Clare, Miss M E	Tweed	Frise, Miss O V	Brighton
Clarke, S H	Toronto	Fry, Miss A C	Dunnville
Clougher, Miss E J	Toronto	Furniss, Miss P H B	Brechin
Cochrane, Miss H M	Toronto	Gamble, Miss M E	Brantford
Collip, Miss R L	Toronto	Gavin, Miss D G	Toronto
	Canandaigua, N Y	Geagen, Miss E	Toronto



Name	Home Address	Name	Home Address
Gibbons, Miss L M	Toronto	McCool, B S	Walkerton
Gilroy, A E T	Mount Forest	McDonald, Miss M S	Tara
Golding, Miss H R	Toronto	MacDonell, J A	Maxville
Goodfriend, Miss H C	Howe Island	MacDougall, Miss A	Mitchell
Gourlay, Miss M	Lancaster	McEwen, Miss G M E	Maxville
Graham, Miss J C	Galt	McGregor, Miss K	Clinton
Gravelle, Miss E M	Toronto	McIntosh, Miss H E	London
Gray, Mrs M C C	Toronto	McIntyre, J V	Brantford
Guinan, Miss W M	Parkhill	McKee, Miss J G	Teeswater
Hannan, Miss A A	Toronto	MacKinnon, Miss E C R	Chesley
Hannan, Miss M A	Toronto	McLaren, Miss E C	St Catharines
Harris, Miss J H	Madoc	MacLaurin, Miss S E	Dalketh
Hellyer, E J	Kenilworth	McLean, B M	Toronto
Henry, L J	Toronto	Maclean, Miss G V	Warton
Hicks, Miss M L	Stratford	McLean, Miss M	Toronto
Hildyard, E	Toronto	MacLellan, Miss M E	Claremont
Hill, D I	Staffa	McNeely, J T	Norwood
Hogarth, Miss M V	Hamilton	Macpherson, Miss J H K	Toronto
Horne, G C	Toronto	MacQuarrie, Miss A P	Harrow
Horne, J V	Toronto	McQueen, M V	Toronto
Howard, Miss A E	Toronto	McRory, Miss G G	Sydenham
Howard, J W	Malton	Marshall, Miss H W	Westmount, Que
Hughes, Miss A	Toronto	Mason, Miss L M	Toronto
Hume, A G	Toronto	Mendizabal, A R	Toronto
Irving, Miss A C,	Cape Inverness, P E I	Messervy, H A	Charlottetown, P E I
Jackson, Miss E M O	Toronto	Metzler, Miss G G	Napanee
Jacobs, Miss E C	Brandon, Man	Middleton, Miss E M	Toronto
Johnson, N F	Aurora	Miller, Miss D E	Thorold
Johnston, Miss J L	Toronto	Minore, Miss A J	Norwood
Jones, W C	Toronto	Mitchell, Miss P E	Toronto
Judson, W	Toronto	Morgan, Miss P L	Lindsay
Kene, J	Brantford	Muir, Miss E J	Cornwall
Kelly, Miss M A	Renfrew	Mulholland, Miss E	Eglinton
Kendrick, Miss R V H	Toronto	Murray, J L	Prescott
Kennedy, G N	Toronto	Mutart, L C	Niagara Falls
Kennedy, V	Toronto	Nephew, Miss E G	Finch
Kerr, H H	Seaforth	Nodwell, W E	Toronto
Kilbourne, Miss M A	London	Parker, R E	Tavistock
Kinchsular, R	Port Dover	Partridge, B O	Barrie
King, C H	Toronto	Pealer, Miss I M	Toronto
Langford, L W	Peterborough	Pearen, Miss E M	Rockwood
Latchford, Miss L	Toronto	Percival, Miss R	Kemptville
Lavell, Miss N	Toronto	Perry, Miss E K	Toronto
Legris, Miss D M	Renfrew	Petrie, Miss P A	Clarkson
Leonard, A K	Clinton	Phillips, Miss L I	Toronto
Lewis, A C	Toronto	Philp, D F	Edmonton, Alta
Livingston, W M	Frankville	Pilgrim, Mrs M V M	Pembroke
Lockhart, Miss L K	Kingston	Pilkey, C G	Claremont
Longeway, Miss T M	Stratford	Popham, Miss M E	Toronto
Lothian, L A	Dalketh	Purvis, S A	Long Branch
Lyon, R A	Riverview	Raney, Miss G C	Pembroke
McAlpine, Miss H B	Toronto	Ratz, Miss R E	Toronto
McAndrew, H O	Hamilton	Read, Miss B R	Sydenham
MacBain, D G	Toronto	Redmond, Miss R E	Kingston
McCann, W E	Aylm, Que	Rehder, Miss A K	Paris
McClennan, Miss O I	Milton West	Rhodes, Miss M E	Brockville

Name	Home Address	Name	Home Address
Richardson, Miss F M	Stittsville	Telford, Miss M E	Owen Sound
Roberts, Miss E	Lanark	Terry, P E	Hillier
Robertson, Miss P A	Barrie	Thibault, Miss L B	Pictou
Robson, Miss J A	Toronto	Throop, A B C	Bewdley
Roche, F R	Ottawa	Torrie, W A	Orangeville
Roike, Miss L E	Peterborough	Townshend, J R	Clinton
Ross, Miss I L	Malton	Tove, Miss D E	Toronto
Rundle, W I	Dundalk	Treitz, E L	Listowel
Royce, Miss M V	St Thomas	Tuck, G I	Hespeler
Russell, M R	London	Tucker, Miss V J	Toionto
Rutherford, Miss K M	Leith	VanAlstyne, Miss H G	Napanee
St Denis, R	Ottawa	VanLuven, Miss D M D	Hamilton
Scott, Miss E L	Clifford	Voaden, H A	St Thomas
Scott, R H	Alliston	Walker, Miss J W	London
Scott, W R M	Toronto	Walker, R B	Toronto
Seasmith, Miss J P	Kincardine	Walton, Miss M B	Parry Sound
Shannon, Miss D E	Sault Ste Marie	Ward, A C	Arnprior
Shea, J R	Harrowsmith	Ward, B A	Toronto
Sheldon, Miss M E	Brockville	Weedmark, I H	Beachburg
Shelton, B M	Peterborough	Weir, Miss E M	Toronto
Sheridan, Miss D G	Brockville	Wheadon, Miss M	Toronto
Smith, Miss M S	Sandford	Whidden, Miss G	Toronto
Snider, Miss W H	St Jacobs	White, Miss E G	Moose Jaw, Sask
Spencer, L A	Hamilton	Williamson, Miss W	Beaverton
Spinks, E J	Newmarket	Willoughby, E R F	Winnipeg, Man
Stafford, Miss L E	Waterford	Wilson, H S	Carleton Place
Stallwood, R J	Jarvis	Wilson, Miss M A	Brighton
Stanley, J H	Guelph	Wilson, R L	Delhi
Staples, Miss K M B	Orono	Windover, Miss F B E	Kingston
Stewart, G S	Parsley	Wingfield, A H	Hamilton
Stokes, M L	Sombra	Wootton, Miss M E	Mavnooth
Tane, W F	Oshawa	Young, J P	Hilton Beach
Taylor, W E	Pefferlaw	Young, Miss S J	Westport

## STUDENTS REGISTERED FOR SPECIALISTS' CERTIFICATES ONLY

Bowers, H	Exeter	Harvey, Miss M I	Peterborough
Bullock, V E	Orono	Levi, Miss R	Toronto
Burnett, Miss E M	Ottawa	Lister, Miss C I	Beamsville
Campbell, Miss M	Peith	McCann, Miss D	London
Campbell, Miss S K	Orangeville	McDermud, Miss I E	Dundalk
Cavanagh, W R	Parkhill	Morris, F J A	Peterborough
Durie, Miss H F	Toronto	Partridge, J A	Toronto
Farmer, C S	Barrie	Paul, Mrs H B	Lyn
Felker, S R	Stoney Creek	Scott, Miss R V	Beamsville
Forsyth, E	Toronto	Shaw, Miss O A	Trenton
Garrett, Miss E C	Walkerville	White, L J	Toronto
Graham, W A	Ottawa	Worden, E H G	Guelph
Hall, Miss M M S	Kingston		

## COURSE FOR THE ORDINARY CERTIFICATE IN HOUSEHOLD SCIENCE

Ackford, Miss M G	St Thomas	Hornby, Mrs E S R	Toronto
Augustine, Miss E I	Port Colborne	Kenner, Miss M L	Stratford
Campbell, Miss M	Brockville	Lee, Miss A M	Martin Siding
Hepburn, Miss H A	Guelph	Martin, Miss C M	Victoria, B C

Name	Home Address	Name	Home Address
Nickell, Miss M E	Rockwood	Stewart, Miss J M	Consecon
Nickell, Miss M F	Rockwood	Thomason, Miss C	Toronto
Purvis, Miss L	Markdale	Watson, Miss F J E	Toronto
Railton, Miss M S E	Smithville	Weld, Miss M	Blytheswood
Stevens, Miss M A	Guelph		

## STUDENTS REGISTERED FOR THE BACHELOR OF PEDAGOGY DEGREE

Anderson, F H	Roland, Man	Jordan, A A	Toronto
Ansley, J W	Toronto	Jordan, J C	Sarnia
Armstrong, T W	Toronto	Kerfoot, H W	Ottawa
Bennett, J M	Toronto	McLellan, J C	Toronto
Bibby, Miss M V	Toronto	McLellan, R F	Toronto
Brennand, C G	Toronto	Misener, G D	Edmonton, Alta
Douglas, A C	Hawkesbury	Mustard, J T	Toronto
Firth, J W	Toronto	O'Reilly, J B	Aurora
Fitch, J H	Truro, N S	Petrie, P A	Toronto
Fraser, S L	Montreal, Que	Rolev, R S	Toronto
Grainger, H A	Toronto	Smith, J L	Toronto
Gray, J E	Toronto	Smith, W C	Toronto
Halbert, E J	Toronto	Spragge, G W	Port Hope
Halbert, H A	Toronto	Steinberg, A G	Cornwall
Holmes, S D	Toronto	Stothers, J C	Bracebridge
Johnston, Miss E C	Toronto		

## SUMMARY

Students Registered for High School and Specialists' Certificates	275
Students Registered for Specialists' Certificates	25
Students Registered for Certificates in Household Science	17
Students Registered for Bachelor of Paedagogy Degree	31
Total	348

## FACULTY OF FORESTRY

## FIRST YEAR

Name	Home Address	Name	Home Address
Connor, L L	Ottawa	Putnam, M M	Merrickville
Gimby, W E	Sault Ste Marie	Steele, W E	Almonte
King, G M	Toronto	Ward, E L	Toronto

## SECOND YEAR

Goodfellow, A W	Huntingdon, Que	Phipps, G W	Thornbury
Klug, H H	Chesley	Ryan, T H	Victoria, B C
Macdonald, S C	Toronto	Smith, R E	Toronto
Mackey, T E	Thornbury	Swartman, G	Waubauskene
Morgan, E C	Toronto	Ussher, R D	Toronto

## THIRD YEAR

Archer, C F	Kaslo, B C	O'Connor, P A	
Batt, C A	Toronto		Point of Spain, Trinidad
Bedell, G H	Bowmanville	Parsons, H H	Toronto
Burrows, T A, Jr	Winnipeg, Man	Rowe, C A	Toronto
Fenwick, A R	Toronto	Simpson, E R	Thornhill
Greenwood, W B	Toronto	Thomson, G J	Mansfield
Higgins, W A	Toronto	Willson, W E	Aurora
Kingston, G A	Ottawa		

## FOURTH YEAR

Ardenne, M	Toronto	Laschinger, E J	New Hamburg
Brown, J D	Brockville	MacFarlane, J D B	Windsor, N S
Burk, A H	Thessalon	McKenzie, A R	Brandon, Man
Fensom, K G	Montreal, Que	Stewart, J V	Toronto
Grant, G C	Aberdeen, Scotland	Walton, J R	Toronto
Hosie, R C	London	Whitelaw, W A	Edmonton, Alta
Kensit, N M	Toronto		

## SUMMARY

First Year	6
Second Year	10
Third Year	14
Fourth Year	13

## FACULTY OF MUSIC

## FIRST YEAR

Name	Home Address	Name	Home Address
Bergin, Miss G L,	East Providence, R I	McIlugh, M J	Toronto
Best, Miss M M	London	Marshall, Miss M II	Guelph
Bone, Miss E E	Toronto	Merchant, Miss M J	Whitby
Brown, Miss T A	Toronto	Nelles, Miss H M	Toronto
Bull, Miss E W	Toronto	Olander, Miss E	Lethbridge, Alta
Cairnie, Miss A G	Lennoxville, Que	Orr, Miss M M	Calgary, Alta
Caistor, Miss F M	Tavistock	Pollett, F M	Weston
Davis, Miss A	Pembroke	Quinlan, Miss F M	Toronto
Fenwick, G R	Hamilton	Rubin, Miss A R	Toronto
Fergusson, Miss E K	Elora	Solway, J B	Toronto
Goodwin, F E	Toronto	Solway, M	Toronto
Jacques, R S	Toronto	Thompson, W M	Hamilton
James, Miss R H B	Newcastle	Vickers, Miss B	Edmonton, Alta
Kerr, J W F	Toronto	Wallace, A H	Toronto
Lewis, Miss C Y	London	Weir, Miss N P	Toronto
McCall, Miss B	Toronto	Willis, Miss N E	Vancouver, B C
		Worden, Miss H C	Cranbrook, B C

## SECOND YEAR

Ahrens, Miss C B	Stratford	Hunt, Miss D B	Toronto
Angus, R A	Toronto	Irwin, Miss K P	Toronto
Becker, Miss H L	Toronto	Lee, Miss E M	Toronto
Chisholm, Miss R E	Oakville	Densem, C H	Toronto
Dickinson, Miss R W J	Port Hope	Record, H J	Regina, Sask
Egan, Miss M E	Toronto	Reed, E	Toronto
Hawke, H W	Toronto	Stephens, F W	Toronto
Herbert, O L	London	Tufts, Miss E L G	Regina, Sask
Hermon, E W	Toronto	White, E F	London

## THIRD YEAR

Bird, Miss A C	Toronto	Price, F P	Toronto
Campbell, Mrs Marv C	Toronto	Webbe, W Y	Summit, N J
Peaker, C	Saskatoon, Sask		

## SUMMARY

First Year	33
Second Year	18
Third Year	5
Total	56

## SCHOOL OF GRADUATE STUDIES

## CANDIDATES FOR PH D

Name	Home Address	Name	Home Address
Adamstone, F B	Toronto	Lacey, A	Toronto
Ainslie, D S	St Mary's	LeDrew, H H	Guelph
Baine, F J	Toronto	Lehrman, S	Toronto
Barnes, C	Leeds, England	Leim, A H	Toronto
Bart, P J	Toronto	Levi, Miss M	Toronto
Bates, H C	Easton, Pa	Lorrman, F R	Thorold
Berkeley, G H	St Catharines	McConkey, O	Guelph
Beiry, A E	St Mary's	MacDonald, Miss E M	Toronto
Borsook, H	Toronto	McKellar, H S	Toronto
Brady, A	Toronto	Mackenzie, J	Toronto
Burt-Gerrans, J T	Toronto	MacKinnon, Miss F I	St Catharines
Cheng, H Y	Washington, D C	McLay, A B	Toronto
Cohen, J W	Toronto	McQuarrie, W C H	Harrow
Connor, A J	Toronto	Matthews, Miss F, A	Toronto
Dobson, W P	Toronto	Moloney, P J	Toronto
Dorland, A G	London	Moriell, J A	Toronto
Eadie, G S	Toronto	Mounce, Miss I	Vancouver, B C
Eastcott, Miss E V	Millbrook	Nolan, Miss L E	Toronto
Findlay, D M	Toronto	O'Connor, Miss M C	Toronto
Foerster, R E	Vancouver, B C	Rebbeck, J W	Vancouver, B C
Fraser, Miss C J	Toronto	Rickaby, H C	Orono
Fritz, Miss C W	Toronto	Riordan, F J	Toronto
Fritz, Miss M A	Toronto	Robinson, D A F	Toronto
Funneil, W S	Toronto	Scott, D A	Toronto
Gee, A H	Toronto	Sharp, Miss D	Beamsville
Gledhill, T L	Kincardine	Sheppard, N E	Toronto
Gordon, A R	Toronto	Sine, F L	Sydenham
Griffen, A K	Toronto	Smith, H G	Toronto
Harkness, W J K	Vineland Station	Stock, L J	Munco Beach
Hoover, G I	Weston	Taylor, Miss E M	Tadmorden
Ireton, H J C	Perth	Walker, A R	Toronto
Kelly, S F	Toronto	Warren, P S	Edmonton, Alta
Kemp, H R	Toronto	Weinberg, Miss M	Winnipeg, Man
Kerr, W B	Seaforth	Westman, A E R	Toronto

## CANDIDATES FOR M A

Ansley, J W	Wingham	Black, D	Peking, China
Archibald, R G	Hazelridge, Man	Bowie, D J	Toronto
Atkinson, W D T	Ottawa	Brearley, E W	Mt Elgin
Ayearst, M J	Toronto	Brodie, Miss G A	Toronto
Ball, W V	Kingston	Brown, Miss H M	Toronto
Ballard, Miss A B	Niagara Falls	Burwash, Miss F M	Arnprior
Balmer, H F	Toronto	Carruthers, R G	Blackstock
Beaman, Miss M B	Monrovia, Cal	Chamberlain, G C	Ottawa
Bell, H J	Peterborough	Chant, S N F	Toronto
Bell, R L	Ingersoll	Cohen, Miss C P	Toronto
Bennett, J M	Toronto	Cohen, Miss C	Toronto
Bird, Miss R G	Barrie	Cole, Miss A C	Toronto

Name	Home Address	Name	Home Address
Collip, Miss R E	Canandaigua, N Y	Lobb, Miss A M	Toronto
Darker, G D	Toronto	Lyons, Miss B E	Newmarket
Dauphinee, J A	New Westminster, B C	McAndrew, H O	Hamilton
Davidson, J F	Toronto	McCamus, W R	Brantford
Deas, Miss J	Toronto	McClenaghan, Miss J V	Ottawa
Dempsey, S J	Neepawa, Man	McCullagh, E C	Toronto
Dore, J W	Toronto	Macdonald, Miss A H G	Toronto
Dougall, Miss M F	Oakville	MacFarlane, Miss E A	Saskatoon, Sask
Drew, Miss K	New Westminster, B C	McGillicuddy, Miss M	Toronto
Drummond, W M	Bristol Corners, Que	M'Gonigle, Miss E M	Newmarket
Dunbar, Miss V E	Vancouver, B C	MacKay, H H	Goderich
Dunlop, W S	Chatsworth	MacKay, L A	Hensall
Eagles, B A	New Westminster, B C	MacLellan, Miss M E	Claremont
Efron, H S	Toronto	McLeod, C H	Collingwood
Endicott, J G	Toronto	McNeely, J V	Norwood
Ewart, Miss A A	Toronto	MacPherson, Miss G	Dutton
Fisher, Miss H E	Toronto	MacPherson, Miss J H K	Toronto
Forman, J H	Woodville	Maitland, Miss M	Elora
Galbraith, G A II	Toronto	Mallon, J P	Toronto
Gallagher, E O	Barrie	Mathers, S J	Palmerston
Gandier, S H	Windsor	Morrow, J E	Colgan
Ganong, C K	Long Point, N B	Mossman, D D	Montreal, Que
Garrard, J D	Kirmington, England	Mulligan, M J	Windsor
Gillies, A	Toronto	Murphy, Miss F M A	Toronto
Gold, Miss S M	Toronto	Murphy, Miss K S	Vancouver, B C
Graham, Miss J C	Guelph	Murray, Miss J E	Saskatoon, Sask
Grant, Miss M E	Wolfville, N S	Noble, W G	Toronto
Grant, W J	Toronto	Oke, C C	Toronto
Greene, Miss F B	Toronto	O'Malley, Miss I F	Toronto
Gulston, C S	Toronto	O'Meara, Miss E	Toronto
Hamilton, Miss C R W	Toronto	Page, A N	Windsor
Hanna, Miss M I	Toronto	Panton, Miss J R	Milton
Hannan, Miss A A	Toronto	Partridge, J A	Toronto
Hill, D C	Ottawa	Pickford, Miss M A	Brighton
Hill, E A	Norwood, Man	Pope, Miss E A	Wellington, New Zealand
Hilborn, H W	Blair	Prosser, R A	Bridgetown, N S
Hogarth, Miss M V	Hamilton	Quirie, Miss V J	Weston
Home, Miss M	Welland	Riley, G G E	Toronto
Home, Miss R M	Welland	Reynolds, N W	Toronto
Hunter, Miss L M	Bradford	Ridout, Miss J H	Toronto
Hussey, L	Clarks Beach, Nfld	Rowell, Miss M C	Toronto
Jackson, A B	St Catharines	Schmidt, E P	Tavistock
Jameson, A E C	St Mary's	Scott, R H	Alliston
Jephcott, C M	Toronto	Scott, R B Y	Toronto
Johnson, E M	Toronto	Sparling, E M	Goring
Keeling, W L	Toronto	Storey, W J	Toronto
Kell, J A C	Cookstown	Sweitzer, C W	Kitchener
Kelly, Miss A M	Toronto	Taylor, A C	Toronto
Kendrick, Miss R V H	Toronto	Taylor, Miss G M P	Toronto
Kilbourne, Miss M A	London	Taylor, Miss N C	Toronto
Lane, J A	Quebec, Que	Thomas, E H	Toronto
Lassaline, H J	Windsor	Thomas, H F S	Toronto
Lightbourn, G O	London	Thomas, Miss I M	Toronto
Little, W J	Barrie	Trethewey, W H	Woodville
Lister, Miss C I	Beamsville	Tuck, G I	Hespeler

Name	Home Address	Name	Home Address
Tuffy, Miss C	Toronto	Whalen, Miss M	Toronto
Valentine, Miss C F	Waterloo	Wigham, Miss H E	Toronto
Walker, R B	Hay P O	Wilkinson, F H	Toronto
Walsh, Miss D H	Merritt, B C	Wilkinson, J E	Toronto
Ward, F G	Toronto	Wilson, H A	Barrie
Watts, Miss A W D	Brantford	Winnett, F V	Oil Springs
Wells, D C	Toronto	Wood, Miss C	Toronto
Weity, E J	Toronto	Wyatt, K S	Wilmot, N S

## GRADUATE STUDENTS

Barry, Miss M D	Toronto	Hope, Miss H J	Toronto
Boyle, Miss B E	Toronto	Howard, Miss A E	Toronto
Brickner, B R	Toronto	Kells, Miss E M	Toronto
Brown, G G	Toronto	Kennedy, Miss M I	Toronto
Brubacher, C S	Kitchener	Ketchum, J D	Toronto
Buchanan, Miss R B	Toronto	Leonard, A K	Clinton
Chantler, Miss G W	Toronto	Lowe, Miss E M	Halifax, N S
Cho, H Y	Toronto	Maguire, Miss L E	Toronto
Clarke, H S	Toronto	Mustard, T	Brucefield
Coles, H F	Toronto	Pugsley, Miss H R	Toronto
Couch, J H	Strathroy	Riley, C G	Milford Bay
Cowie, Miss H	Ottawa	Robertson, Miss P A	Barrie
Cressman, J B	Kitchener	Scott, Miss W F	Toronto
Currie, C M	Smith's Falls	Shelton, B M	Peterborough
Currie, J E	Wingham	Skinner, Miss M H	Toronto
Davidson, Miss V M	Toronto	Squair, Miss M R	Toronto
Ferguson, D H	Toronto	Steedman, A C	Toronto
Field, Miss A W	Grinnell, Iowa	Strong, Miss M K	Toronto
Hill, K W	Toronto	Thompson, Miss D A	Toronto
Holmes, A	Toronto	Wright, Miss A M	West Hill

## CANDIDATES FOR M D

Boyd, Miss G L	Toronto	Wilson, M J	Toronto
Ellis, A W M	London, England		

## CANDIDATES FOR CH M

Dafoe, W A	Madoc	Huether, A L	Guelph
Gillespie, W F	Edmonton, Alta	Minish, N J	Gilbert Plains, Man

## CANDIDATES FOR M A Sc

Dilworth, H M	Toronto	Lewis, C E	Toronto
Farncomb, H F	Trenton	McBride, E W	Toronto
French, H E	Midland	Shaffer, B	Fort William
Kay, G F	Toronto	Veals, R C	Toronto
Leslie, R C	Toronto		

## CANDIDATES FOR M ARCH

McIntyre, H A	Toronto	Noxon, K F	London, England
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## CANDIDATES FOR C E

Allan, E B	Hamilton	Shupe, S	Kitchener
Marani, V G	Chicago, Ill	Topping, V	Toronto

## CANDIDATES FOR M E

Duncan, J M	Toronto
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## CANDIDATES FOR D PAED

Name	Home Address	Name	Home Address
Allen, P C	Toronto	Ketchum, P A C	Toronto
Althouse, J G	Toronto	King, H B	Vancouver, B C
†Ansley, J W	Regina, Sask	Kinnee, H C	Toronto
Baker, J W	Toronto	Langford, F W	Toronto
Ballard, M R	Moose Jaw, Sask	Leitch, A G	Toronto
Bell, R L	Ingersoll	Lewis, A C	Toronto
Bennett, W G	Toronto	Long, J A	Toronto
Bowers, H	Exeter	McCullough, J L	Toronto
Brennand, C G	Toronto	MacDonald, D D	Toronto
Bunt, W H	Toronto	MacInnes, E D	Toronto
Cameron, J A	Toronto	MacKenzie, D H	Toronto
Campbell, A L	Weston	McMillan, E R N	New Westminster
Carlisle, J O	Toronto	McMillan, G	Hamilton
Carlton, W H	Toronto	McNaughton, J L	Walkerville
Cavell, H E	Toronto	Magee, H E	Toronto
Challen, N E	Galt	Masterton, R B	Kamloops, B C
Coombs, F E	Toronto	Maxner, M O	Lunenburg, N S
Daniels, P	Hamilton	Morgan, Miss G	North Bay
Davidson, J H	Hamilton	Morrison, S A	Markdale
Diltz, B C	Lindsay	Mustard, C A	Toronto
Dippell, L W	Kincardine	†Mustard, T	Toronto
Downey, R F	Peterborough	Niece, H P	Vankleek Hill
Dowsec, J E R	Regina, Sask	Payne, Miss L	Toronto
Ferguson, J G	Bassano, Alta	Petrie, P A	Toronto
Fyde, W A	Toronto	Philips, C E	Toronto
Goldring, C C	Toronto	Pound, G S	Abernethy, Sask
Galpin, H B	London	Powell, F C	Toronto
Grainger, H A	Toronto	Prueter, H J	Toronto
Green, W H H	Sudbury	Ray, V A	Hamilton
Halbert, E J	Toronto	Ronan, Miss F T	Toronto
Halnan, L R	Stratford	Rowe, C L	Oshawa
Hardy, J H	Perth	Scott, A R	Bowmanville
Henry, S E	Haileybury	Seaton, H T	Hamilton
Holmes, S D	Pictou	Simpson, J G	Toronto
Horwood, R B	Toronto	Stanbury, Miss F	Toronto
James, F J	Port Arthur	Stewart, R	Toronto
Jameson, E	Toronto	Stothers, J C	Toronto
Jameson, W H	Niagara Falls South	Trench, W W A	Richmond Hill
Jameson, Miss J L	Toronto	Walsh, J C	Ottawa
Johnston, Miss E C	Toronto	Wetmore, H. H	Pictou, N S
Jordan, A A	Toronto	Willis, C B	Edmonton, Alta
Kelly, W F	Toronto	Worden, O O	Toronto
Kerfoot, H W	Ottawa	Wright, R	Hanover

## SUMMARY

Candidates for Ph D	68
Candidates for M A	150
Graduate students	40
Candidates for M D	3
Candidates for Ch M	4
Candidates for M A Sc	9
Candidates for M Arch	2
Candidates for C E	4
Candidates for M E	1
Candidates for D Paed	86
Duplicate registration	2
Total	387

†Duplicate Registration

## DEPARTMENT OF SOCIAL SERVICE

## FULL TIME STUDENTS

## FIRST YEAR

Name	Home Address	Name	Home Address
*Brown, Miss L K	Victoria, B C	King, Miss V F	Toronto
Campbell-Johnston, D G	Winchester	King, Mrs V T	Toronto
Charleson, Miss A L	Ottawa	Lehite, Miss M L M	Islington
Collier, Miss A G	Lougheed, Alta	Mallon, Miss E	Toronto
*D'lacon, Mrs G	Winnipeg, Man	Milligan, Miss D	Toronto
Farmer, Miss E H	Toronto	Page, Miss I	Windsor
Farwell, Mrs E M	Toronto	Pateison, Miss R M	Kingston
Findley, Miss P M	Toronto	Pearce, Miss H L	Toronto
Follett, Miss E G	Toronto	Philips, Miss M M	Toronto
Frawley, Miss H	Toronto	Pook, Miss E	Strathroy
Greenwood, Miss H E	Douglas, Man	Quick, Miss E M	Maple Creek, Sask
Heise, B W	Stouffville	Sinclair, Miss R M	Belleville
Hastings, Miss A A	Toronto	Smale, Mrs W L	Windsor
Hughes, Miss K A	Lausung	Snowdon, Miss K	Ottawa
Hyman, Miss L	Toronto	Williams, M E	Toronto
Inglis, Miss M H	Toronto		

## SECOND YEAR

Laine, Miss P M	Toronto	Turton, Miss N E	Toronto
Laughton, Miss L V	Toronto	Waldo, Miss E	Toronto
Lawson, Miss M M	Toronto	Whitehead, Miss H M	Walkerton
Ord, Miss G M	Islington		

## PART TIME STUDENTS

Addison, Miss E W	Petitcodiac, N B	Butcher, Miss A K	Port Sydney
Andrew, Miss S R	Auburn	Byers, Miss L M	Cardinal
Armstrong, Miss M E	Toronto	Calkin, Miss M E	Wolfville, N S
Arthur, Miss M L	Toronto	Campbell, Miss R M B	Farran's Point
Atkinson, Miss J G V	Toronto	Carmichael, Miss K	Toronto
Ayerst, Miss M M E	Owen Sound	Carroll, Miss M	Montreal, Que
Bach, Miss M	Toronto	Casey, Miss F M	King
Bailey, Miss H L	St John, N B	Cathcart, Miss H F	Courtright
Baldwin, Miss C M	Toronto	Caughill, Miss J E	Espanola
Barkley, Miss M O	Chesterville	Chapentier, Miss H M	Sutton West
Barton, Miss S C	Beeton	Clark, Miss E L	Toronto
Beaumont, B	Toronto	Clark, Miss M	Cansville
Beecher, Mrs O R	Toronto	Clark, Miss V E	Kirkfield
Bell, Miss M H	Grimsby	Cochrane, Miss A I	Portreeve, Sask
Bolton, Miss R A	Toronto	Coleman, Miss F	Napanee
Bond, Miss E M	Guelph	Coney, Miss E G	Toronto
Breadner, Miss H F	Toronto	Conway, Miss K J	Embro
Bridge, Miss E G	Thessalon	Corrigan, Miss M	Toronto
Brown, Miss M L	Toronto	Cramp, Miss I	Oakville
Browning, Mrs A E	St John's, Nfld	Crew, Miss J H	Scarboro Bluffs
Burbidge, Miss V	Brampton	Cummings, Miss E M	Toronto
Buigar, Miss G M	Toronto	Cunneyworth, Miss M A	Toronto
Burry, Miss S A	St Johns, Nfld	Daly, Miss M	Toronto

\* Michaelmas Term

Name	Home Address	Name	Home Address
Darling, Miss M	Bradford	Johnston, Miss M	Toronto
Darlington, Miss M	Parry Sound	Jones, Miss I C	Toronto
Deacon, Miss R	Lloydton	Kain, Miss E L	Hanover
Delantz, Miss C	Toronto	Kane, Miss N	Toronto
Derry, Miss L I	Kingston	Keaney, Miss H G	Bradford
Doyle, Miss C	Port Arthur	Kemp, Miss L E	Toronto
Duffield, Miss M H	York Mills	Kennedy, Miss B H	Wingham
Eldridge, Miss E L	Alton, N Y	Kerr, Miss H L	Toronto
Ellard, Miss M	Toronto	Kightley, Miss G R	Penetanguishene
Elhott, Miss K I	Kelso	King, Miss E M	Stratford
Elliott, Miss V M	Agincourt	Knowles, Miss E J	Toronto
Fawcett, Miss G E	Mitchell	Labey, Miss H B	Trenton
Fell, Miss E B	Toronto	Lang, Miss A L	Indian Head, Sask
Fenn, Miss M	Whiteside	Lanigan, Miss R M	Melbourne, Que
Ferguson, Miss G F	Toronto	Larkin, Miss M	Toronto
Finnie, Miss J E	Bathelboro	Lashengie, Miss E E	New Hamburg
Fleming, Miss J H C	Craighleith	Lavine, Miss T D	Toronto
Fletcher, Miss D	Toronto	Layton, Miss K M	Shelburne
Floyd, Miss M	Chesley	Lea, Miss M J	Bradford
Foliss, Miss H E	Guelph	Lewis, Miss K E	Toronto
Ford, Miss R M	Hamilton	Lightbourn, Miss M D	Toronto
Forde, Miss H	Toronto	Littlewood, Mrs P	Halifax, N S
*Fraser, Miss A B	Hamilton	Locke, Miss B J K	Campbellford
Fraser, Miss E B	Englehart	Lowery, Miss T	Ottawa
Fraser, Miss M E F	Toronto	Lucas, Miss E	Toronto
Gaudet, Miss L	Toronto	Luxton, G N	Mount Forest
Gladstone, Miss A C	Midland	Lyall, Miss L M	Shanty Bay
Glithero, P	Toronto	Lynch, Miss E M	Toronto
Goodwin, Miss C F	Toronto	Macara, Miss M G	Ottawa
Graham, Miss D S	Sutton West	McCabe, Miss E	Toronto
Graham, Miss E R	Almonte	McCallum, Miss M	Toronto
Graham, Miss L	Toronto	McCarthy, Miss C	Toronto
Granville, Miss C	Toronto	McCleary, Miss D A M	Sheridan
Greenwood, Miss M S	Ridgeville	McClunche, Miss M	Seaforth
Grover, Miss H L	Norwood	MacDonald, Miss H	Toronto
Haines, Miss E L	Toronto	MacDonald, Miss J M	Toronto
Halkett, Miss I	Toronto	MacDonald, Miss M	Pictou, N S
Halliday, Miss M M	Toronto	McDonald, Miss R	Toronto
Hallman, Miss S B	South Cayuga	McDonald, Miss R M	Owen Sound
Hamilton, Miss E M	Colgan	McKague, Miss E	Wingham
Handley, Miss V	Winnipeg, Man	McKee, Miss E	Hamilton
Harris, Miss L M	Welland	McKinnon, Miss J L	Winnipeg, Man
Hart, Miss E	Uxbridge	McKinnon, Miss K	Copper Cliff
Hay, Miss M J	Alliston	McLaren, Miss H L	Lumsden, Sask
Hearn, Miss H A	Toronto	McLennan, Miss C S	River John, N S
Heath, Miss O J	Orton	McLeod, Miss A M	Sudbury
Hewitt, Miss E M	Athens	McNaughton, Miss A E	North Bay
Hodgson, Miss R M	Lindsay	Madden, Miss M E	Toronto
Hosking, Miss S G	Rockwood	Mallaby, Miss R	Toronto
Howell, Miss J G	Fonthill	Manson, Miss A	Toronto
Hughes, Miss M A	Toronto	Matthews, Miss T M	McLancthon
Irwin, Miss M L	Toronto	Mohr, Miss N E	Toronto
Jaffray, Miss M F	Galt	Mollenhauer, Miss L B	Newmarket
Johnston, Miss B F	Mimico	Morrison, Miss R M	Halifax, N S

Name	Home Address	Name	Home Address
Mulhall, Miss G M	Cobourg	Sewell, Miss S J	Paris
Mutch, Miss M. D	Toronto	Shaw, Miss M	Toronto
Mylius, Miss I	Toronto	Shuttleworth, Miss M V	Brooklin
Munro, Miss J E	Halifax, N S	Siteman, Miss E R	Lower Ship Harbour, N S
Murray, Miss L D	Moose Jaw, Sask.	Skitch, W H	Toronto
Nicholson, F J	Toronto	Slater, Miss I M	Waterdown
Nicoll, Miss J E	Puslinch	Smith, Miss D E	Mimico Beach
Nixon, Miss E	Malton	Speers, Miss O I	Caledon
Norwich, J R	Toronto	Spencer, Miss M M	Toronto
O'Beirn, Miss E K	Uxbridge	Staples, Miss F C	Woodville
O'Brien, Miss M M	Toronto	Stephen, Miss E	Winnipeg, Man
O'Gorman, Miss J	Eganville	Stevenson, Miss V I	Guelph
O'Hara, Miss M I	Toronto	Stewart, Miss B	Bradford
Ord, G L	Islington	Stewart, Miss K M	Toronto
O'Reilly, Miss A K	Bolton	Stewart, Miss M E	Conniston
Ormsby, Miss M	Toronto	Strathy, Miss B M	Toronto
Page, Miss E V	Toronto	Stuart, Miss H M	Toronto
Patterson, Miss A M	Priceville	Tackaberry, Miss K	Toronto
Patton, Miss M A	Sarnia	Thomas, Miss G L	Milton West
Peacock, Miss B I	Toronto	Thomas, R F	Toronto
Percy, Miss D M	Ottawa	Thompson, Miss A	Lombardy
Perry, Miss D E	Brampton	Thompson, Miss L M V	West Flamboro
Peters, Miss L M	Dalhousie Lake	Treadway, Miss L	Toronto
Pingle, Miss I I	Umonville	Turner, Miss M T	Peterboro'
Pinkerton, Miss J M	Pinkerton	Underhill, Miss A M	Fort William
Radmore, Mrs L I	Toronto	Valens, Miss E M	Edmonton, Alta
Raikes, Miss C C	Barrie	Vohman, Miss H H	Toronto
Rainboth, Miss L	Ottawa	Walker, Miss L A	Bobcaygeon
Raymer, Miss N B	Mount Joy	Walker, Miss W	Regina, Sask
Robbins, Miss E M	Orillia	Wandle, Miss L A	Toronto
Roberts, Miss A	Toronto	Wells, Miss M M	Brighton
Robinson, Miss K	Toronto	Wheler, Miss E R	Washington, Ga
Rombough, Miss M C	Finch	Wilson, Miss E M	Ottawa
Rooney, Miss A	Toronto	Wood, Miss C L	Bathelboro
Rowan, Miss E A	Toronto	Woodard, Miss J M	Toronto
St John, Miss M E	Toronto	Young, Miss J D	Kingston
Scollon, Miss R	Toronto	Young, Miss M R	Milltown, N B
Scott, Miss B C	Altston	Zielger, Miss B R	Kingston
Scott, Miss M I	Milton		
Scott, Miss M M J	Forest		

## SUMMARY

Full Time Students	
First Year	31
Second Year	7
Part Time Students	232
Total	270

## DEPARTMENT OF PUBLIC HEALTH NURSING

## FULL TIME STUDENTS

Name	Home Address	Name	Home Address
Baird, Miss A B	Winnipeg, Man	McClintock, Miss E J	Lisle
Chambers, Miss N R	Stirling	McCort, Miss M	Toronto
Crane, Miss F N	Toronto	McEnaney, Miss M E	Toronto
Dalzell, Mrs I J	Scotland	Macintyre, Miss A E	Kincardine
De Porcheron, Mrs A	Stellarton, N S	McPhail, Miss A I	Woodstock, N B
Dillon, Miss L	Toronto	Rathbun, Miss N I,	Newport Sta., N S
Durie, Miss G E	Toronto	Ratz, Miss E M	Toronto
*Gibson, Miss A L	Kingston	Rice, Miss M E	Welland
Grahame, Miss J B	Toronto	Seely, Miss E	Toronto
Grindon, Mrs A F	Vancouver, B C	Sheridan, Miss C	Brockville
James, Miss D M	Ottawa	Tisseau, Miss M V J	France
Kerr, Miss O V	Port Elmsely	Vickova, Miss M	Czechoslovakia
Kilborn, Miss C A	Chengtu, China	Willis, Miss M J	Stellarton, N S
Lawder, Miss L	Weston		

## PART TIME STUDENTS

Allison, Miss J T	Acincourt	Millman, Miss M B	Toronto
Barnes, Miss F H	Toronto	Nicol, Miss I M	Toronto
Blackmore, Miss G S	Toronto	Price, Miss E R	Toronto
Blackstock, Miss B	Toronto	Price, Miss Z I	Toronto
Butchart, Miss M E	Toronto	Quigley, Miss M R	Toronto
Connor, Miss A M	Toronto	Reid, Miss D	London
Cowan, Miss J M	Yorkton, Sask	Rogers, Miss A A	Toronto
Davies, Miss M E	Toronto	Rogers, Miss E T	Toronto
Dove, Miss A G	Toronto	Ross, Miss B A	Toronto
Forbes, Miss G	Toronto	Ross, Miss G	Toronto
Gamble, Miss L A	Ottawa	Scholey, Miss E	Toronto
Gardner, Miss C	Toronto	Sharpe, Miss E H	Toronto
Hefferman, Miss H	Toronto	Sketch, Miss R B	Toronto
Hicks, Miss E	Toronto	Stovel, Miss M	Toronto
Hutchison, Miss B S	Toronto	Weldon, Miss O E	Oakwood
McKinnon, Miss E D	Toronto	Wheeler, Miss M A	Toronto
Meador, Miss K	Toronto	Woods, Miss J M	Toronto

\*Michaelmas Term

## SUMMARY

Full Time Students	27
Part Time Students	34
Total	61

## GRAND SUMMARY

Faculty of Arts	2,331
Faculty of Medicine	877
Faculty of Applied Science and Engineering	566
Ontario College of Education	348
Faculty of Forestry	43
Faculty of Music	56
School of Graduate Studies	367
Department of Social Service	270
Department of Public Health Nursing	61
Duplicate Registrations	60
Total	<hr/> 4,859



## HISTORICAL SKETCH

The movement which ended in the establishment of the University of Toronto as the centre of the educational system of the Province of Ontario originated with General Simcoe, the first Governor of Upper Canada, who repeatedly expressed his conviction, both before his departure from England and also during his term of office (1792-1796), that the best interests alike of the Government and of the inhabitants demanded the establishment of a University in Upper Canada. It was not, however, during his administration that the project assumed a definite form.

In 1797 the Legislative Council and House of Assembly in a joint address to King George III asked "that his Majesty would be graciously pleased to direct his Government in the Province to appropriate a certain portion of the waste lands of the Crown as a fund for the establishment and support of a respectable Grammar School for each district thereof, and also a College or University for the instruction of youth in the different branches of liberal knowledge". To this address a favourable answer was transmitted, and the acting Lieutenant-Governor, the Hon. Peter Russell, was directed to determine the manner and character of the appropriation. In accordance with this request the Executive Council of Upper Canada reported on the 1st December, 1798, that an appropriation of 500,000 acres would be sufficient for the support and maintenance of four Grammar Schools and a University. For the foundation of the latter nothing was done until 1827, when a Royal Charter was granted for the establishment at or near York, as Toronto was then called, of a College, "with the style and privileges of a University", to be called "King's College", having for its endowment that portion of the grant of "waste lands" originally provided for the University in the report above referred to. These lands were in 1828 exchanged for 225,944 acres of Crown Reserves.

Owing not only to the character of the endowment, which required time for its realization in the form yielding an annual revenue, but also owing to the terms of the charter, which required all the members of the Faculty to be adherents of one particular religious denomination, the opening of the College was delayed for fourteen years. In consequence of public representations on the sectarian character of the College, all religious tests were abolished by an amended charter which passed the two Houses of the Provincial Legislature and received the Royal Assent in 1837. In 1842 the affairs of the University had assumed such a condition as to render its organization possible, and Faculties of Arts, Medicine, Law and Divinity were established. In that year the erection of the College Building was begun on the eastern portion of the site of the present Legislative Buildings. In 1843 the first matriculation of students took place, and inaugural addresses and lectures were delivered on the 8th and 9th of June of that year.



The agitation which resulted in the amended charter of 1837 had continued after the opening of the College in 1842, owing to the efforts made to defeat the purpose of the amendment, and in 1849 an Act of the Legislature effected important modifications in the constitution of King's College whereby all instruction in Divinity was discontinued, and a larger measure of public control of the affairs of the University instituted, through the formation of a Senate, of which a number of the members were appointed by the Crown. The name was now changed from that of "The University of King's College" to that of "The University of Toronto."

Three years afterwards the University underwent a further transformation, by which the Act of 1853 abolished the Faculties of Medicine and Law, and divided its functions between the two newly organized corporations of the "University of Toronto" and "University College." To the Senate were assigned the duties of framing the curriculum, holding examinations and admitting to degrees in Arts, Law and Medicine, while to the Presidents and Professors of University College, as a distinct and independent corporation with special powers, were assigned the teaching in Arts and the entire discipline and control of students. The models followed in the reorganization of the University, it claimed, were the University of London and University College, London, both of which had then been only recently established. For thirty-four years the University of Toronto and University College performed the functions respectively assigned to them by this Act.

During the early years of the University it experienced repeated changes in its local habitation. The faculty and students of King's College were at first temporarily accommodated in the Parliament Buildings until the erection of the east wing of King's College admitted of the occupation of their own building. From this they were anew transferred to the old Parliament Buildings in 1853, when, by a special Act, the site of King's College was appropriated for the proposed new buildings for the use of the Parliament of Upper and Lower Canada. On the return of the Legislature to Toronto, in 1856, the Faculty resumed the occupation of the old King's College Building, while one formerly in use by the Medical Faculty, situated on the site of the present Biological Building, was being adapted for their occupation. There accordingly the work of the College was carried on, pending the erection of the new University buildings. These buildings were begun in 1856, and on October 4th, 1859, the top stone of the main tower was placed in position by Sir Edmund Head, the Governor-General, an old Oxford professor, the value of whose sympathy and support at this critical period in the history of the University cannot be overestimated.

For thirty-four years the constitution of the University of Toronto and of University College remained unchanged. Other collegiate bodies, principally denominational schools of theology, entered into affiliation with the University, and, with regard to their especial requirements, the course of study in Oriental Languages was augmented, but the Faculty of University College continued to do the work of instruction for nearly all the students

in Arts who presented themselves for examination. The candidates for examination and degrees in medicine were trained in medical schools in affiliation with the University, and for degrees in Law the examinations were based upon text-books prescribed by the Senate, without teaching.

In 1887 both the University of Toronto and University College were remodelled by the University Act. The main object of renewed legislation was to secure a more uniform standard of higher education by the union of the various denominational universities of Ontario with the Provincial University. Since the proclamation of the Act, Victoria University at Cobourg, representing the Methodist body, has entered into federation with the University of Toronto. The governing body of this institution is now represented on the Senate of the University of Toronto, its graduates elect representatives to the same body, and by the removal of the faculty and students of Victoria University to Toronto, where college buildings have been erected to the north of Queen's Park, the union of the two universities has been effected. Under the Federation Act, the theological colleges, also formerly in affiliation with the University of Toronto, have become federated colleges, and enjoy increased representation on the Senate.

The Faculty of University College, by the Act 1887, consists of professors and lecturers in Classic Languages and Literature (including lectures in Ancient History), Oriental Languages, English, French, German and Moral Philosophy. All other portions of the Arts course are assigned to the Faculty of the University of Toronto, of which the lectures are made equally available to the students of University College, and those of all federating universities and colleges. For the maintenance of certain of the departments of science on a scale demanded by modern methods of research, special provision has been made by the erection of new and the enlargement of old buildings. In the new Biological Building every facility is now provided for practical training in Biology and Physiology. The Chemical Building was completed in 1895, and affords similar facilities for practical work in Chemistry.

A Faculty of Medicine in the University of Toronto was established immediately upon the passing of the Act in 1887, and teaching is imparted in all branches of medical science. All the advantages of the Faculty of Arts are available for students in Medicine, and the laboratories of the scientific departments are utilized equally by students in both faculties. In 1903 the new Medical Building was opened.

In 1888 a stimulus was given to the study of scientific methods of farming by the affiliation of the Ontario Agricultural College and the adoption of a curriculum of study for the degree of Bachelor of the Science of Agriculture. Similarly an examination for the degree of Doctor of Dental Surgery was instituted, as a consequence of the affiliation of the Royal College of Dental Surgeons of Ontario. The College of Pharmacy was subsequently admitted to affiliation and a curriculum in Pharmacy prescribed. On the affiliation of the Toronto College of Music a curriculum of study was prepared for the degree of Bachelor of Music. The School of

Practical Science was affiliated in 1889, and graduates of the School are specially eligible on certain conditions for the degree of Bachelor of Applied Science and of various degrees in Engineering in the University. By a recent enactment of the Senate a curriculum was prescribed leading to the degrees of Bachelor and Doctor of Pedagogy. In 1897 a course of study was established leading to the degree of Doctor of Philosophy in certain of the Arts departments. In 1897 the Ontario Veterinary College was also affiliated.

On February 14th, 1890, the Main University building was partly destroyed by fire. In the reconstruction thereby rendered necessary, opportunity was afforded for important improvements in lighting, heating and ventilation. Considerable extension was effected in the numbers, capacity and equipment of the lecture rooms and laboratories. A new library building was erected on plans embracing the most recent improvements suggested by the experience of leading universities in the United States and elsewhere. A building for the accommodation of the Gymnasium was erected in 1892 and additions to it were completed in 1894 for the accommodation of student societies.

One of the most important events of recent years was the federation of the University of Trinity College, which was proclaimed by His Honour the Lieutenant-Governor on the 18th of November, 1903, and came into effect on the 1st of October, 1904.

The passing of the University Act, 1906, is the latest and most important development in the history of the University. A short account of the changes of greatest importance will be found in the early portion of this calendar under the title "Constitution and Administration of the University."

As provided in the University Act of 1906, St. Michael's College was declared to be a College in the Faculty of Arts on the 8th of December, 1910. On November 11th, 1919, Hart House, the gift of the Massey Foundation, was formally opened by His Excellency the Duke of Devonshire, Governor-General of Canada. The building is the new Undergraduates Union of the University and contains completely equipped club rooms, including common rooms, dining hall, chapel, the offices of the various students societies, gymnasia and theatre.

## THE ROYAL ONTARIO MUSEUM

The Royal Ontario Museum was officially opened by Field Marshal His Royal Highness the Duke of Connaught, Governor-General of Canada, on the afternoon of Thursday, March 19th, 1914. This event marked a memorable occasion in the history of Art and Science in the Province of Ontario.

The Royal Ontario Museum was established under an Act of the Legislative Assembly of Ontario in the year 1912. According to the Act the purposes of the museum are —

(a) The collection and exhibition of objects of every kind calculated to illustrate the natural history of Ontario, and thereby to aid in a knowledge of what this province is able to contribute to science and industry.

(b) The collection and exhibition of objects of any kind calculated to illustrate the natural history of the world and the history of man in all ages.

(c) Such other objects as may be authorised by the Lieutenant-Governor in Council.

The cost of the erection of the building and the maintenance thereof is borne in equal amounts by the Province of Ontario and the University of Toronto. The present building, inclusive of offices, is 380 feet long and 60 feet wide and was erected at a cost of about \$400,000. The large section of University property lying between the present building and Avenue Road has been reserved by the Board for the extension of the Museum. The proposed plans show the building in the form of a hollow square with a handsome stone front facing Bloor Street.

Under Section 20 of the Museum Act the Board is empowered to establish various departments of the Museum which are to be designated "The Royal Ontario Museum of \_\_\_\_\_". In accordance with this by-law the Board has already established the Royal Ontario Museums of Archaeology, Geology, Mineralogy, Palaeontology and Zoology.

The establishment of this museum conjointly by the Province of Ontario and the University of Toronto is due in very large measure to the enthusiasm and leadership of the late Sir Edmund Walker, the Chairman of the Board of Trustees.

The Museum is governed by a Board of Trustees, a body corporate consisting of ten members. The Minister of Lands, Forests and Mines and the Minister of Education of the Province of Ontario, and the Chairman of the Board of Governors of the University of Toronto are ex-officio members of this Board. The other seven members are appointed—four by the Lieutenant-Governor in Council, and three by the Governor of the University of Toronto as follows,—

*Appointed by the Lieutenant-Governor in Council*

SIR EDMUND OSIER,  
J B O'BRIAN, ESQ, K C,  
MRS H D WARREN,  
SIGMUND SAMUEL, ESQ

*Appointed by the Governors of the University of Toronto*

Sir Joseph Flavelle,  
The President of the University,  
Colonel R W Leonard

## ARCHAEOLOGY

The Royal Ontario Museum of Archaeology is under the direction of C T. Currelly, and is designed to show the best work which was done in the different crafts by the people of the past. An attempt has been made to show the history of the development of each of the great arts which have made civilization possible, by exhibiting the best examples of the early stages of development, of the culminating point, and then of the decline.

For the Stone Age the collection is very large, almost world-wide. The use of the early metals (copper and bronze) in the evolution of important tools is shown by a series of examples grouped under the Last Prehistoric Collection.

A large Egyptian series and a smaller Babylonian collection exhibit the history of pottery, stone vases, weapons, jewelry, medicinal articles, tools, textiles, sculpture and objects connected with death and burial. These exhibits occupy three galleries.

Two large galleries are devoted to the exhibition of ancient works of art from Greece and Italy. These consist of vases that illustrate nearly all the stages of vase painting from the Aegcan and the mainland, armour, statuettes, jewels, and sculpture.

The next gallery is devoted to a collection to illustrate the life of the common people at the time of Christ and the early Church. This ranges from rag dolls to weapons, and from combs and domestic articles to shoes and tunics. In this same gallery is a large collection mainly of pottery objects obtained from the tombs of Palestine, and extending in periods from the earliest times down to the periods of the Byzantine empire.

As the student is now brought through the great spread of civilization of the Roman period, the next exhibition is of those nations that have lagged behind, where prehistoric things may be illustrated more freely by peoples who have recently been in the Stone Age. Here are shown the weapons and implements of the Eskimos, Africans, and South Sea Islanders, and of other peoples in the Stone Age or other primitive conditions.

Parallel to this gallery runs the collection illustrating the life of the American Indian. This consists of a fine series of paintings, objects of

the Stone Age, and survivals of early things in use by the present Indians. It is mainly devoted to North America, though several cases contain Mexican, Peruvian and other South American objects.

The great central hall is packed with Chinese works of art, of which we are particularly rich in tomb objects, especially terracotta sculptures and early wares. The collection of stone sculpture is also considerable, and the collection of textiles, jades, bronzes, etc., quite large. The whole forms one of the best general collections of Chinese art in existence. No space is available for the large collection of very fine Chinese paintings possessed by the Museum.

South of the central hall are two galleries devoted mainly to furniture and rooms, but with a certain number of costumes, wood-carvings, etc., put in because of lack of other space for them.

The cross gallery at the end contains the Japanese collections of pottery, bronzes, armour, carvings, paintings, etc.

Between the large central hall and the door are parallel galleries, one devoted to the history of faience, and filled in with musical instruments, velvets, glass, furniture, sculpture, etc., the other one devoted to lace and embroideries, but with the general collection of arms and armour also packed into it.

The space immediately inside the door is devoted to the exhibition of recent acquisitions.

## MINERALOGY

In the Royal Ontario Museum of Mineralogy, which is under the direction of Professor T. L. Walker, are very extensive collections of minerals and rocks. The most generous benefactors of this section are men connected with the mining industry. To make the collections more useful to visitors the large specimens contained in the high cases are provided with special explanatory labels. In the cases on the east wall of the gallery a special display of the minerals of Canada is arranged. The Director appeals to friends of the University for contributions of minerals and rocks with a view to making these collections as complete as possible.

During the past year the collections have been increased by donations from a large number of friends, particularly mine owners in the Cobalt, South Lorrain and Porcupine areas.

Notable presentations have been made by the Vipond Consolidated Mines, The Mining Corporation of Canada, E. V. Neelands, Esq., and Harvard University.

Important exchanges have been made with the British Museum (Natural History), the United States National Museum, the Museum of Natural History, Paris, New York State Museum, Geological Survey of Rhodesia,

Rhodesia Broken Hill Development Company, Columbia University, J G Manchester, Esq, F N Ashcroft, Esq, H G Clinton, Esq, and Professor Alberto Pelloux, in addition to numerous exchanges of lesser magnitude

During the year the Museum has secured by purchase two large specimens showing the association of the minerals at the Casey silver mine, near New Liskeard, and at the La Rose mine, Cobalt, Ontario

## GEOLOGY

The Museum of Geology is under the direction of Professor E S Moore, and it occupies the gallery along the west side of the basement. Its ten alcoves are designed for exhibits of the mineral resources of Canada in particular and of the features of Economic, Structural, and Dynamic Geology in general. This gallery is devoted specially to the exhibition of ores and other economic mineral products, and most of the exhibits have been received through the generosity of the men in the mining industry.

The more important collections in the gallery include the Cobalt silver ores, the ores and associated rocks of the Sudbury Nickel field, the coals, micas, clays, oils, building stones, and ores of Canada, the asbestos of Quebec, and the various economic minerals of many countries of the world. There is an unusually fine exhibit of marbles, domestic and foreign, and the exhibit of specimens illustrating glacial phenomena in various geological periods on the several continents is usually regarded as the most complete in existence.

Of the additions to the Museum during the past year the following are the more important:

A model of Niagara Falls, 8 x 12 feet. Purchased from Mr F Burgie. Suites of ores illustrating the ore deposits at Bruce Mines, Ont., Hidden Creek Mine, B C, Premier Mine, B C, Coeur d'Alene, Idaho, Butte, Mont., Homestake Mine, Lead, S Dak. Collected by the Director.

Collection of ornamental stones from Madagascar, England, Sicily, and Switzerland. Purchased through Dr Parks.

Samples of by-product oven coke, and by-products of coal—Dominion Iron and Steel Co., Sydney, N S.

Collection of specimens from glacial deposits in Argentina, India, S Africa, and Colorado, specimens of Sudbury ores and native gold from various mining camps—Dr A P Coleman.

Silver-cobalt-nickel ores from mines of the Cobalt district—Mr Scott Turner, Mining Corporation of Canada.

Specimens from Mr Andrew Hepburn, London, England, Mr A H Means, Premier, B C, Mr Hector MacDonald, Premier, B C, Mr F E Patton, Anyox, B C, Mr L B Wright, Lead, S Dak, Mr J A Orr, Toronto, Mr S F Kelley, Toronto, Mr D L Grabill, Toronto, Mr Percy E Hopkins, Toronto, Dr W F Ferrier, Toronto, Mr Duggan, Butte, Mont., Mr M A Hanna, Anyox, B C, Professor A MacLean,

Toronto, Dr T L Walker, Toronto, and Mr Sidney Miller, Alice Arm, B C

Polished marbles from Belgium—Société Anonyme de Merbes Le Chateau and Société Anonyme de Merbes Sprimont, Belgium

## PALAEONTOLOGY

The Museum of Palaeontology is under the direction of Professor W A Parks, and occupies the middle section of the top floor of the building. The collection of fossils is very extensive and contains many rare and unique specimens. It has developed from a nucleus presented by Sir Edmund Walker some years ago. Among the more important exhibits are the type Cambrian fossils presented by Sir William MacKenzie, the fossil sea-lilies presented by Mr Frank Springer of Burlington, Iowa, a large fossil reptile presented by Sir Edmund Walker, Sir Donald Mann, Sir Lyman Melvin Jones and others. Recently a very fine skeleton of the extinct moa of New Zealand was added, and the skeleton of a mastodon, obtained some years ago near Welland, was prepared and mounted.

A series of wall cases has been installed, in which the geology and palaeontology of Canada is illustrated in a continuous but restricted manner.

During the last few years a vigorous campaign has been conducted for the acquisition of fossil dinosaurs from the famous region on the Red Deer river, Alberta.

Four nearly complete specimens of trachodont dinosaurs have been mounted in the gallery. One of these is a species new to science and the other represents a new genus and species of the most remarkable character. Two heads of another new species of trachodont have been mounted recently. There has also been placed on exhibition a very perfect head and part of the body of the horned dinosaur *Centrosaurus apertus*, also, the rear portion of the skeleton with skin and plates intact of a new genus of plated dinosaur. During the past year a very perfect head of a new genus of horned dinosaur and the head of still another trachodont have been prepared but are not yet placed in the gallery.

The department is provided with commodious storage and preparation rooms equipped with the necessary appliances for cutting and polishing specimens, and for the complex work of preparing vertebrate skeletons.

The more important acquisitions during the past year are as follows—

The skeletons of several dinosaurs and turtles from the Red Deer river Alberta—Expedition of 1923.

Carboniferous plants from Minto, N B—Dr W S Dyer, Toronto.

Collection of *Bryozoa* with sections—R R Hibbard, Esq, Buffalo, N Y.

Scapula of a mammoth—J C Rowan, Esq, Toronto.

Teeth and bones of elephants and horses from Alberta—M S Tracy, Esq, Medicine Hat, Alberta.

Carboniferous and Devonian fossils from the Banff Area—Professor P S Warren, University of Alberta.



Models of fossil horses—Dr J W Gidley, U S National Museum  
Collections of Ammonites and Graptolites—Ward's Natural Science  
Establishment, Rochester, N Y

Selected fossils—Emile Deyrolle Fils, Paris, France

Selected fossils—F H Butler, London, England

Ordovician fossils from Ontario—The staff

### ZOOLOGY.

The Museum of Zoology is under the direction of Professor B A Bensley, and occupies the north portion of the top floor of the building. The first installation of specimens took place in 1914, some time after the establishment of the remaining portions of the Royal Ontario Museum, the nucleus of the new collection having been formed chiefly from Canadian material previously housed in the Biological Museum of the University. Many new additions have been made through the generosity of individual donors and through the co-operation of the Provincial Government and the Parks Department of the City of Toronto. The exhibits illustrate especially the fauna of Canada, all groups of which are represented, though Birds, Mammals, and Insects predominate. Some foreign material, more especially of birds, mammal heads and molluscan shells, has been installed as the beginning of a more general collection which will be developed later when more extensive accommodation becomes available.

### ADDITIONS TO COLLECTIONS

#### ZOOLOGY

During the year 1923-24 the zoological collections were greatly augmented and there were important accessions to the library.

(1) The following collections were received by donation.

A collection of birds' eggs from Dr P E Clarkson, Toronto

A collection of mounted heads of mammals of India from Major A B Wilkie, Toronto

A collection of 503 bird skins, property of the late Mr James Goldie, Guelph, presented by the Honourable Lincoln Goldie, Provincial Secretary

A collection of mounted birds and mammals from the estate of the late Dr H H Moorhouse, Toronto

A collection of 284 bird skins from Mr H H Brown, Toronto

A case of mounted birds from Mrs Riseborough, Toronto

A collection of zoological specimens from the Royal Canadian Institute, Toronto

A collection of birds and other specimens obtained by Commander Allan Crawford on Wrangel Island, presented by Professor J T Crawford, University of Toronto

A large number of specimens of birds and mammals from the Parks Department, City of Toronto

Collections of specimens obtained through co-operation of friends of the Museum, including Mr Stuart Thompson, Dr Paul Harrington, and Mr W LeRay

A collection of birds of Iowa from Mr L I Snyder, Royal Ontario Museum of Zoology

(2) The following collections were purchased at a nominal valuation

A collection of birds' eggs and 354 bird and mammal skins from Mr A A Wood, Coldstream, Ont

A collection of 1,184 bird and mammal skins from Mr G C Garrett, Cranbrook, B C

A collection of molluscan shells from Mr E H Cole, Toronto, through the Royal Ontario Museum of Mineralogy.

(3) Individual specimens were received from the following donors

J. B Chamberlain, Lindsay, Ont	J W Sedore, Toronto
Dr Paul Helliwell, Dryden, Ont	McL Howard, Toronto
Dr H R Reazin, Toronto	Mrs Cowan, Toronto
W R Campbell, Coldstream, Ont	Mrs Garret, Toronto
Dr W A Costain, Toronto	J Roberts, Credit Forks, Ont
D Bell, Lake Nipigon, Ont	E G White, Ottawa
R Haidman, Toronto	G R C Merriam, Toronto
Mrs D S Barclay, Toronto	Miss Lillian Lucas, Toronto
H W Arnold, Toronto	J H Fleming, Toronto
N H Brown, Toronto	Mrs Gemmel, Toronto
N Walker, Toronto	D Stringer, Algonquin Park, Ont
J J Steele, Toronto	H Dowler, Veteran, Alberta
Miss L Pratt, Petrolea, Ont	W Filman, Aldershot, Ont
C W Gutteridge, Toronto	T D Dockray, Toronto
G H Corsan, Toronto	F Smith, Toronto
R Lansing, Toronto	
E Brown, Toronto	

(4) The following donations of books have been received

Richardson, Fauna Americana Boreali (1829) and Studer, Birds of North America (1903) from the late Sir Edmund Walker, Chairman of the Board of Trustees

Elliot, Synopsis of Trochilidae (1878) from the Honourable Lincoln Goldie, Provincial Secretary

A Description of the Animal Collection of the Tower of London (1829) from Mr W G Ferrier, Toronto

Collections of pamphlets from systematists of the United States and Canada

(5) Members of the scientific and technical staffs visited St Andrews, Lake Nipigon, and other localities, obtaining a large amount of zoological material. The exhibitions series of fishes has been greatly improved by addition of coloured casts of marine species, and new methods of mounting birds have been introduced

## DONATIONS OF BOOKS

Since the destruction of the University Library by fire in 1890, upwards of 55,000 volumes have been presented by various persons and organizations. For a complete list of the latter see Appendices to Calendars since 1893. The following is a list of donors for the year ending December 31st, 1923.

## Governments of—

Alberta	Mexico
Australia	Michigan
Belgium	Minnesota
Butenzorg	New Brunswick
British Columbia	New Hampshire
Canada	New Jersey
Chicago	New South Wales
Colorado	New York State
Connecticut	New Zealand
England	Nova Scotia
France	Ohio
Hawaii	Ontario
Illinois	Oregon
India	Quebec
Indiana	Saskatchewan
Iowa	Scotland
Italy	South Africa
Java	South Dakota
Madras	Sweden
Manitoba	Trinidad
Marseilles	United States
Massachusetts	Uruguay

Aberdeen Public Library  
 Aberdeen, University of  
 Abo, Academy of  
 Academia Nacional de Ciencias, Cordoba  
 "Acta Victoriana"  
 Adelaide, University of  
 Aix, University of  
 Alba Co., St. Louis  
 Albany Medical College  
 Alberta, University of  
 American Antiquarian Society

American Chemical Society  
American College of Surgeons  
American Geographical Society  
American Historical Association  
American Institute of Consulting Engineers  
American Institute of International Law  
American Jewish Committee, New York  
American Law Book Company  
American Medical Directors Life Assurance Company  
American Mining Congress  
American Museum of Natural History  
American National Red Cross  
American Philosophical Society  
American Railway Bridge and Building Association  
American Schools of Oriental Research  
Amherst College  
Amsterdam, Physiologisch Laboratorium  
Association de Medecins de la Langue Française  
Association of American Physicians  
Association of Life Insurance Presidents  
Auburn Theological Seminary  
Augustana College  
Ausschusz fur Ruhrarbeit, Darmstadt  
Australian Museum, Sydney, New South Wales  
Basel, University of  
Bayerische Akademie der Wissenschaften  
Baylor University  
Belfast, University of  
Bergens Museum  
Bibliographe Moderne, Le  
Birmingham Public Library  
Bishop's College, University of  
Bodleian Library  
Boston Public Library  
Boston, University of  
Botansk Haves Bibliotek, Copenhagen  
Bowdoin College  
Bradley Polytechnic Institute  
Brentwood College  
Breslau University  
Bristol, University of  
British Columbia, University of  
British Museum  
Brooklyn Institute of Arts and Sciences  
Brown University

Brussels, University of  
 Bryn Mawr College  
 Buffalo Historical Society  
 Buffalo, University of  
 Bulletin des Recherches Historiques  
 Bureau of American Ethnology  
 Bureau of Industrial Research, New York  
 Bureau of Social Hygiene, New York  
 Calcutta University  
 California, University of  
 "Canada Français, Le"  
 Canadian Bank of Commerce  
 Canadian Engineering Standards Association  
 Canadian Historical Association  
 Canadian Military Institute  
 Canisius College  
 Canterbury College, New Zealand  
 Canton Christian College  
 Cape Town, University of  
 Captain Scott Antarctic Fund, Science Museum, South Kensington  
 Cardiff Naturalists' Society  
 Carnegie Corporation of New York  
 Carnegie Endowment for International Peace  
 Carnegie Foundation for Advancement of Teaching  
 Carnegie Institute of Technology  
 Carnegie Institution of Washington  
 Carnegie Library, Pittsburgh  
 Carnegie Museum, Pittsburgh  
 Carnegie Trust for the Universities of Scotland  
 Case School of Applied Science  
 Catholic University of America  
 Chicago, University of  
 Chinese Legation, Washington  
 Cincinnati, University of  
 Clark University  
 Clarkson College  
 College Saint Joseph  
 Collège de St Laurent  
 College of Charleston  
 College of the Pacific, California  
 College of Physicians and Surgeons of Ontario  
 College of Physicians of Philadelphia  
 Columbia University  
 Copenhagen, K. Store Bibliotek  
 Copenhagen, Universitetets Zoologiske Museum  
 Copenhagen, University of

Cornell University  
Dalhousie University  
Detroit Historical Society  
Detroit Observatory  
Deutsche Dendrologische Gesellschaft  
Dominion Astrophysical Observatory, Victoria  
Dominion Bank  
Dominion Engineering Works  
Dominion Observatory, Canada  
Dove Marine Laboratory  
Dropsie College  
Dublin, University of  
Durham, University of  
Eastman Kodak Co., Rochester  
Ecole libre des Hautes Etudes  
Ecole libre des Sciences Politiques, Paris  
Edinburgh, University of  
Edmonton Public Library  
Edward Thompson Co  
Engineering Foundation, New York.  
Episcopal Theological School, Cambridge  
Esthonia Consulate, New York.  
Field Museum of Natural History  
Food Research Institute, Stanford University  
Forbes Library, Northampton, Massachusetts  
Fraser Publishing Co  
Geneva, University of  
Gesellschaft fur Erdkunde zu Berlin  
Grace Hospital, Detroit  
Grand Rapids Public Library  
Grenoble, University of  
Halle, University of  
Hamburg, University of  
Hamilton Scientific Association  
Hannover Technische Hochschule, Darmstadt  
Hannover, Flugfolio  
Harcourt Brace and Co  
Hartford Seminary Foundation  
Harvard College Observatory  
Harvard University  
Harvard University Museum of Comparative Zoology  
Havana, University of  
Haverford College  
Hobart College  
Hong Kong, Royal Observatory

Hydro Electric Power Commission  
 Illinois State Historical Library  
 Illinois, University of  
 Imperial Cancer Research Fund  
 Imperial Life Association Co., Toronto  
 Imperial Order of the Daughters of the Empire  
 India Office, London, England  
 Indian Museum  
 Indiana Academy of Science  
 Indiana, University of  
 Indicator Publishing Co  
 Institucio catalana d'història natural  
 Institut d'Estudis Catalans, Barcelona  
 Institut Oceanographique de Monaco  
 Institute of Chemistry  
 Institute of Science and Industry, Australia  
 Institution of Civil Engineers, London  
 Instituto Geológico de México  
 "Inter-America"  
 International Acceptance Bank, New York  
 International Apple Shippers' Association  
 Interstate Commerce Commission  
 Investment Bankers' Association of America  
 Iowa Geological Survey  
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## PORTRAITS AND WORKS OF ART

The following portraits and works of art have been presented to the University

1 A portrait of the late Hon William Hume Blake (oil painting by T Hamel), presented by the Hon Edward Blake

2 A portrait of the Hon Edward Blake, Chancellor 1876-1900 (oil painting by E Wylie Guier), presented by graduates and friends

3 A portrait of Professor E J Chapman (oil painting by Miss Frances Sutherland), presented by the artist

4 A portrait of the late Professor Henry Holmes Croft (oil painting by A. Dickson Patterson), presented by friends of Professor Croft

5 A portrait of the late President, Dr McCaul (oil painting by A Dickson Patterson), presented by the artist.

6 A portrait of the late Hon Thomas Moss, Chief Justice of Ontario, Vice-Chancellor 1875-1881 (oil painting by Miss C. S. Berthon, copy of oil painting by M Berthon), presented by the Hon Charles Moss, Chief Justice of Ontario, Vice-Chancellor of the University

7 A portrait of the late Right Reverend Bishop Strachan (oil painting copy), presented by the Council of University College

8 A portrait of the late President, Sir Daniel Wilson (oil painting by A Dickson Patterson), presented by friends of Sir Daniel Wilson

9 A portrait of Professor E J Chapman (oil painting by A Dickson Patterson), presented by graduates and friends

10 A marble bust of the late Professor George Paxton Young (by Hamilton McCarthy), presented by friends of Professor Young

11 A portrait of the late Professor George Paxton Young (oil painting by W Allaire Shott), presented by the artist

12 A steel engraving of Sir John Colborne, afterwards Lord Seaton, Lieutenant-Governor of Upper Canada from 1830 to 1838, presented by Mr Henry Hutchison

13 "The Call to Duty" (oil painting by Paul Giovanni Wickson), presented to the Medical Faculty by the artist

14 "The Marriage of the Duke of York" and "The King of Denmark's First Visit," commemorative medals, presented by the Town Clerk of London, Eng.

15 A bronze medal commemorative of the sesquicentennial anniversary of the founding of the College of New Jersey (Princeton University), presented by the trustees of Princeton University.



16 A bronze medal commemorative of the 150th anniversary of the capture of Louisbourg in 1745, presented by the Louisbourg Memorial Committee of the General Society of Colonial Wars

17 A bronze medal commemorative of the 50th anniversary of Sir George Gabriel Stokes' appointment to a professorship in the University of Cambridge

18 Busts of Dr W T. Aikins, Dr J H. Richardson, and Dr H H Wright, by the Medical Faculty and other friends

19 A bust of the late Hon George Brown, and a portrait of the late Professor Croft, by Dr Reeve

20 Portraits of their Royal Highnesses the Prince and Princess of Wales, presented by their Royal Highnesses as a souvenir of their visit to the University in 1901

21 A portrait of the Hon. Sir William Mulock, LL D, ex-Vice-Chancellor of the University, presented by members of the Senate and other friends

22 A steel engraving after Turner, by the late Sir Daniel Wilson, presented by Charles James Heywood, Esq, Manchester, Eng.

23 A collection of medals and coins, bequeathed by the late Dr. Scadding

24 A portrait of Professor Goldwin Smith, presented by J. Ross Robertson, Esq

25 A portrait of Dr. John Hoskin (oil painting by Robert Harris), presented by members of the Board of Governors and of the Senate and other friends

26 A portrait of Dr Maurice Hutton, Principal of University College (oil painting by William Cruikshank), presented by the Board of Governors

27 A portrait of Sir Daniel Wilson, late President of the University of Toronto (oil painting by Sir George Reid), presented by members of the Board of Governors and of the Senate and other friends

28 A portrait of Dr. R A Reeve (oil painting by Curtis Williamson), presented by members of the Board of Governors and of the Senate and other friends

29 A portrait of Dr John Galbraith (oil painting by J W L Forster), presented by graduates of the Faculty of Applied Science

30 A portrait of Dr. James Loudon, ex-President of the University of Toronto (oil painting by William Orpen), presented by the members of the Senate and other friends

31 A portrait of Dr James Loudon (oil painting by Frederick Victor Poole), presented by Mrs Loudon

32 A portrait of the Hon Sir William Ralph Meredith, LL D, Chancellor of the University (oil painting by William Strang),

presented by members of the Board of Governors and of the Senate and other friends

33 A portrait of the late Hon Joseph Curran Morrison, Chancellor of the University of Toronto, 1860-1876 (oil painting by Charles Hayward) presented by Judge Hardy of Brockville

34 A portrait of Dr William Henry van der Smissen, Professor Emeritus of German in University College (oil painting by Professor Philip Otto Schafer), presented by Mrs. van der Smissen

35 A bronze medal commemorative of the 300th Anniversary of the founding of the University of Groningen

36 A portrait of the late John Langton, M A, Vice-Chancellor of the University of Toronto, 1856-1861 (oil painting by E Wyly Grier) presented by his surviving sons, W A Langton, John Langton and H H Langton

37 A portrait of the late Larratt William Smith, D C L, K C, Vice-Chancellor of the University of Toronto, 1873-1875 (oil painting by G. T Berthon), presented by his family

38 "C'est l'Empereur" (oil painting by H de T Glazebrook), presented by the artist

39 A portrait of the late William Oldright, M A, M D, Professor of Hygiene in the University of Toronto, 1887-1910 (oil painting by E Wyly Grier), presented by his children

40 A portrait of James Mavor, Ph D, Professor of Political Economy in the University of Toronto (oil painting by Horatio Walker, Esq, LL D), presented by the artist

41 A portrait of Charles Vincent Massey, M A, a member of the Board of Governors of the University (oil painting by F H Varley), presented by friends of Mr Massey

42 A portrait of Robert Ramsay Wright, M A, D Sc, LL D, Vice-President and Dean of the Faculty of Arts of the University of Toronto, 1901-1912, and Professor Emeritus of Biology (oil painting by Arnesly Brown), presented by the Board of Governors

43 A portrait of Alfred Baker, M A, LL D, Dean of the Faculty of Arts of the University of Toronto, 1912-1919, Professor Emeritus of Mathematics (oil painting by E Wyly Grier), presented by members of the Board of Governors of the Senate and other friends

44 A portrait of William Hodgson Ellis, M A, M B, LL D, Dean of the Faculty of Applied Science and Engineering of the University of Toronto, 1914-1919, and Professor Emeritus of Applied Chemistry (oil painting by E Wyly Grier), presented by the members of the staff of the Faculty of Applied Science and Engineering

45 Fifteen water-colour sketches of Canada and Edinburgh by Sir Daniel Wilson, purchased by the Board of Governors

46. A portrait of Chester Daniel Massey, a member of the Board of Governors of the University from 1906 until 1920 (oil painting by F. H. Varley), presented to the University by the Board of Governors

47. A collection of engravings of Old Montreal, done by the late Mr Learmont, from paintings by H. Bunnett, and presented by Mrs Learmont, of Montreal

48. A portrait of Professor Irving Heward Cameron, M.B., LL.D., Professor of Surgery in the University of Toronto, 1897-1920 (oil painting by F. H. Varley), presented to the University by the graduates of the Faculty of Medicine

49. A portrait of the late Professor John Joseph Mackenzie, B.A., M.B., Professor of Pathology and Bacteriology in the University of Toronto, 1900-1922, (oil painting by Allan Barr), presented to the University by friends of Professor Mackenzie

## UNIVERSITY STUDIES

The following is a list of studies published up to January, 1921

## HISTORY AND ECONOMICS

- Review of Historical Publications relating to Canada, edited by Professor GEORGE M. WRONG and H. H. LANGTON  
 Vol. I-XXII, Publications of the years 1896-1917  
 Vols. 2, 3, 5-18 (in cloth), each ..... \$2 00  
 Vols 1 and 4 ..... o p  
 Index to Vols I-X, XI-XX, each ..... 2 00
- The Review of Historical Publications has ceased to appear, being merged in a new publication, The Canadian Historical Review, a quarterly, annual subscription 2 00  
 (Vols I-III completed)
- History and Economics, Vol I comprising
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No 122	Methylene-blue as indicator in determining the toxicity of phenol and phenol-salt solutions towards yeast, by CHARLES G FRASER	0 25
No 123	Friedel and Crafts' reaction, by MAURICE E SMITH, H N STEPHENS and T C McMULLEN	0 25
No 124	The acclimatization of yeast to ammonium fluoride and its reversion in wort, by ELLIS I FULMER	0 25
No 125	Friedel and Crafts' reaction Some substituted phthalic anhydrides with toluene and aluminum chloride, by WALTER A LAWRENCE	0 25
No 126	Coagulation of colloidal solutions of arsenious sulphide by electrolytes, by E. F BURTON and E D MAC-INNES	0 25
No 127	The rate of formation and the yield of yeast in wort, by NORMAN A CLARK	0 25
No 128	The scattering of light Note on Wolski's paper on optically empty liquids, by FRANK B KENRICK, The scattering of light by dust-free liquids, II, by W H MARTIN and S LEHRMAN	0 50
No 129	The pressure-volume relation of superheated liquids, by K L WISMER	0 50
No 130	The relation between light-absorption and light-scattering for liquids, W H. MARTIN	0 50
No 131	The melting interval of certain under-cooled liquids, with a note on the use of liquid air as a refrigerant, by JOHN BRIGHT FERGUSON	0 50

No 132	The Friedel and Crafts' reaction with phthalic anhydride, by T. C. McMULLEN . . . . .	0 50
No 133	The diffusion of hydrogen and helium through silica glass and other glasses, by G. A. WILLIAMS and J. B. FERGUSON . . . . .	0 50
No 134	The melting and freezing point of sodium chloride, by JOHN BRIGHT FERGUSON . . . . .	0 50
No 135	Light scattering Bibliography, by W. H. MARTIN . . . . .	0 50
No 136	The scattering of light by dust-free liquids—changes with temperature, by W. H. MARTIN and S. LEHRMANN . . . . .	0 50
No 137	The relation between current, voltage, and the length of carbon arcs, by A. E. R. WESTMAN . . . . .	0 50
No 138	The oxides of iron, by JOHN B. FERGUSON . . . . .	0 50
No 139	Some preparations from Maleic and Fumaric Acids, by HAROLD G. ODDY . . . . .	0 50
No 140	The scattering of light by liquids Effect of direction on polarization and intensity, by W. H. MARTIN, and other papers from the department of chemistry . . . . .	0 50
No 141	Multiple electrode systems, by A. HAROLD HEATLEY . . . . .	0 50

#### THESES ACCEPTED FOR THE DEGREE OF DOCTOR OF PHILOSOPHY

FREDERICK HUGHES SCOTT 1900

The Structure, Micro-Chemistry and Development of Nerve Cells, with special reference to their nucleic compounds University of Toronto Studies, Physiological Series No. 1, 1900  
Transactions of the Canadian Institute 1898-99, Vol. 6, Parts 1 and 2, pp. 405-438

JOHN CUNNINGHAM McLENNAN 1900

Electrical Conductivity in Gases Traversed by Cathode Rays 1900 Philosophical Transactions of the Royal Society of London Series A, Vol. 195, pp. 49-77

WILLIAM ARTHUR PARKS 1900

The Huronian of the Basin of the Moose River University of Toronto Studies, Geological Series, No. 1, 1900

FRANCIS BARCLAY ALLAN 1901.

The Basic Nitrates of Bismuth, 1901 American Chemical Journal, Vol. XXV, No. 4, April, 1901, pp. 307-315

ROSS GEORGE MURISON 1902

The Mythical Serpents of Hebrew Literature, 1902

RICHARD DAVIDSON 1902

The Semetic Permiansive-Perfect, 1902

## WALTER REUBEN CARR 1903

On the Potential Difference required to produce electrical discharges in gases at low pressure, an extension of Paschen's Law Transactions of the Royal Society of Canada, Second Series, 1902-03 Vol VIII, section III, pp 161-182 1902

On the Laws governing electric discharges in gases at low pressures. Philosophical Transactions of the Royal Society of London, Series A, Vol 201, pp 403-433

## EMMA SOPHIA BAKER 1903

Experiments on the Æsthetic of Light and Colour University of Toronto Studies, Psychological Series, Vol I, No. 4

Spectrally Pure Colours in Binary Combinations University of Toronto Studies, Psychological Series, Vol II, No 3 1902

## GEORGE GALLIE NASMITH 1903

The Chemistry of Wheat Gluten

University of Toronto Studies, Physiological Series, No 4

The Transactions of the Canadian Institute, Vol VII 1903

## CLARA CYNTHIA BENSON 1903

The Rates of Reactions in Solutions containing Ferrous Sulphate, Potassium Iodide and Chromic Acid.

The Journal of Physical Chemistry, May, 1903, pp 356-388.

## WILLIAM EDINGTON TAYLOR 1903

The Ethics and Religious Theories of Bishop Butler

Toronto The Bryant Press 1903

## THOMAS EAKIN 1905

The Text-book of Habakkuk, chap I 1-II 4

Toronto E. D. Apted, n d

## THOMAS RUTHERFORD ROBINSON 1906

Stereoscopic Vision and its relation to Intensity and Quality of Light Sensation. University of Toronto Studies Psychological Series Vol II, Nos 2 and 3 Reprint n d

## JOHN RANSON ROEBUCK 1906

The rate of the Reaction between Arsenious Acid and Iodine in Acid Solution, the rate of the reverse Reaction, and the Equilibrium between them

The Journal of Physical Chemistry, Vol VI., p 365, and Vol IX, p 727 Reprint n d

## MAITLAND CREASE BOSWELL 1907

The Course of the Oxidation of -Naphthoquinone to Phthalic Acid and the Detection and Estimation of  $\alpha$ -Naphthoquinone,  $\beta$ -Naphthoquinone, Phthalonic Acid and Phthalic Acid

Toronto The University Press n.d.



RALPH EMERSON DELURY 1907.

The Rate of Oxidation of Arsenous Acid by Chromic Acid and the Induction of Arsenious Acid by the Reaction between Chromic and Hydriodic Acids

The Journal of Physical Chemistry, Vol XI Reprint. n d

DAVID STRATHY DIX 1908

Complementarism; Physical and Psychical University of Toronto Studies Reprint n d

AUSTIN PERLEY MISENER 1909

The Place of Hosea I-III in Hebrew Literature  
Toronto E D Apter n d

JOHN FRANCIS MACKEY 1909

Part I Some Esters of Arsenious Acid

Part II Some Esters of Antimony Trioxide Reprint n d

CALVIN ALEXANDER MCRAE 1910.

The Hebrew Text of Ben Sira (Ecclesiasticus)  
Toronto Queen Printing Co n d

WILLIAM ROBERT TAYLOR 1910

The Originality of the Hebrew Text of Ben Sira in the light of the Vocabulary of the Versions  
Toronto E D Apter n d

WALTER DANIEL BONNIER 1912

Experimental Determination of Binodal Curves, Plait Points, and Tie Lines in Fifty Systems, each consisting of Water and Two Organic Liquids

ELI FRANKLIN BURTON 1910

On the Physical Aspect of Colloidal Solution University of Toronto Studies, Physical Series, No 36

SAUL DUSHMAN 1912

The Behaviour of Copper Anodes in Chlorine Solutions

The Journal of Physical Chemistry, Vol XIV Reprint n d

JOSEPH ROY SANDERSON 1912

The Relation of Evolutionary Theory to Ethical Problems.

ABSALOM COSENS 1913

A Contribution to the Morphology and Biology of Insect Galls

VIVIAN ELLSWORTH POUND 1913

I The Absorption of the Different Types of Beta Rays together with Study of the Secondary Rays excited by them

II On the Secondary Rays excited by the Alpha Rays from Polonium Part I

On the Secondary Rays excited by the Alpha Rays from Polonium Part II

- PERCIVAL WILSON SPENCE 1913  
Moray Transitions in Israel Between 1200 and 700 B C
- EDWARD MOORE JACKSON BURWASH 1914  
The Geology of Michipicoten Island
- ROBERT CORNELL ARMSTRONG 1914  
Light from the East, Studies in Japanese Confucianism
- SAMUEL BEATTY 1915  
Extensions of Results Concerning the Derivatives of an Algebraic Function of a Complex Variable
- ROY BALMER LIDDY 1915  
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- JAMES BERTRAM COLLIP 1916  
On the Formation of Hydrochloric Acid in the Gastric Tubules in the Vertebrate Stomach
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A Study of Certain Minerals from Cobalt, Ontario
- WILLIAM HARVEY MCNAIRN 1916  
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- EDWIN JOHN PRATT 1917  
Studies in Pauline Eschatology and its Background
- HENRY FRANKLIN DAWES 1918  
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A Lens Refractometer  
On the Ionisation by Collision in the gases Helium and Argon
- RAYMOND COMPTON DEARLE 1919  
Some Investigations in the Infra-Red Regions of the Spectrum
- ELLIS INGHAM FULMER 1919  
The Action of Certain Poisons and of Ammonium Fluoride on Yeast
- ARCHIBALD BRUCE MACALLUM 1919  
The Relation of Vitamines to the Growth of Young Animals
- MOSSIE MAY WADDINGTON 1919  
The Development of British Thought from 1820 to 1890
- JAMES HERBERT WHITE 1919  
On the Biology of Fomes Applanatus
- FULTON HENRY ANDERSON 1920  
Substance in John Locke's Theory of Knowledge
- HAROLD KEITH BOX 1920  
Dental and Associated Tissues
- EDWARD HORNE CRAIGIE 1920  
On the Relative Vascularity of Various Parts of the Central Nervous System of the Albino Rat

ROBERT KAY GORDON 1920

John Galt

KENNETH HAY KINGDON 1920

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Phenomena in Mercury Vapour

The Magnetisation of Ships and its Application to the Operation of Magnetic and Electro-magnetic Devices External to the Ship

NORMAN ASHMELL CLARK 1921

The Growth Rate of Yeast

WALTER ALBERT LAWRENCE 1921.

(1) Friedel and Crafts' reaction—intrphthalic anhydrides and acetylaminophthalic anhydrides with benzene and aluminium chloride (2) Friedel and Crafts' reaction

MAURICE EDWARD SMITH 1921

Friedel and Crafts' Reaction—the carbmethoxy—benzoyl chlorides with aromatic hydrocarbons and aluminium chloride

GEORGE HOWARD BROTHER. 1922

A Study of Some Periodic Phenomena in Electro-Chemistry.

GEORGE HENRY DUFF 1922

The Development of the Geoglossaceae

WALTER RAYMOND FETZER 1922.

The Periodic Phenomena observed during the Electrolysis of Aqueous Solutions of Sodium Sulphide

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A Comparative Study of the Abdominal Musculature of Orthopteroid Insects

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- MISS JESSIE GERTRUDE WRIGHT 1923  
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- HENRY BORSOOK 1924  
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The Diffusion of Copper in Solutions of Copper Sulphate containing Sulphuric Acid
- DONALD MUNRO FINDLAY 1924  
The Reaction of Aqueous Alcoholic Solutions  
Insulin and some basic dyestuffs
- RUSSELL EARLE FOERSTER 1924  
Studies in the Ecology of the Sockeye Salmon

MISS CLARA WINIFRED FRITZ 1924

Cultural Criteria for the Distinction of Wood-destroying Fungi

ALEXANDER HENRY LEIM 1924

The Life History of the Shad (*Alosa Sapidissima*) with Reference to the Factors Limiting its Abundance

FREDERICK REGINALD LORRIMAN 1924

Some Derivatives of Acenaphthene

MISS FLORA ISABEL MACKINNON 1924

The Philosophical Writings of Henry More

PETER JOSEPH MOLONEY 1924

On the Purification of Insulin

JOSEPH ALAN MORRELL 1924

Kinetics of Arginase

MISS EDITH MARJORY TAYLOR 1924

The Action of Acids on Yeast

PERCIVAL SIDNEY WARREN 1924

The Geology of the Banff Area

ALBERT ERNEST ROBERTS WESTMAN 1924

The Relation Between Current Voltage and Length of Carbon Arcs

## EXTENSION LECTURES

These lectures are offered to the public so that it may be possible for those interested, in any part of Ontario, to avail themselves of either single lectures or short courses of lectures on literary and scientific subjects. If requests are made for lectures not found on the present list, an effort will be made to provide them.

The cost of each lecture, if given within the Province of Ontario, consists of the lecturer's travelling and entertainment expenses, plus five dollars. On his return from delivering a lecture, the professor reports to the Extension Office the amount of his expenses, this information is sent forward to the person who arranged for the lecture and a cheque, made payable to the lecturer and at par in Toronto, is then to be mailed to the Extension Office.

During the session of 1922-23 several series of lectures on Social Hygiene were arranged in a number of centres in the Province. A list of the lectures available this year, with names of lecturers, will be sent on request.

The Faculty of Medicine, University of Toronto, in co-operation with the Ontario Medical Association, offers lectures to medical organizations throughout Ontario. Particulars regarding these may be obtained from the Secretary of that Faculty.

All correspondence with regard to lectures, and all money paid for lectures or for lecturers' expenses, should be sent to the Director, University Extension, University of Toronto.

## E. A. ALLCUTT, M.Sc.

- 1 The Panama Canal (Illustrated)
- 2 Volcanoes (Illustrated)
- 3 Machines for Testing Materials (Illustrated)
- 4 Diesel Engines (Illustrated)
- 5 Mond Gas Plants (Illustrated)
- 6 Suction Gas Plants (Illustrated)

## LOUIS ALLEN, Ph.D.

- 1 The International Language Movement (Esperanto)

## G. R. ANDERSON, M.A., A.M.

## A. Various Phases of Illumination

- 1 House Lighting (Illustrated)
- 2 Industrial Lighting (Illustrated)
- 3 Lighting of Public Buildings (Illustrated)
- 4 Street Lighting (Illustrated)

## B Photography

- 1 Landmarks in the Development of Photography (Illustrated)
- 2 Applications of Photography (Illustrated)
- 3 Photography in Colour (Illustrated)

## J T BURT-GERRANS, Phm B, M A

- 1 Automobile Storage Batteries (Illustrated)

## E F BURTON, B A, Ph D

- 1 The Properties of Colloidal Solutions (With experimental illustrations)
- 2 Liquid Air (With experimental illustrations)
- 3 The Structure of the Atom (Slides)

## J HOME CAMERON, M A

- 1 French Art (Illustrated)

## C A CHANT, M A, Ph D

- 1 The Einstein Theory and the Australian Eclipse
- 2 The Universe of Stars
- 3 Our Little System and the Great Beyond
- 4 The Planet Mars

## W H CLAWSON, B A, N B, M A, Ph D

- 1 Shakespeare's Theatre (Illustrated)
- 2 The Popular Ballads in Britain and America

## C K. CLARKE, M D, LL D

- 1 The International Movement for Mental Hygiene
- 2 The Intelligence Tests from the Standpoint of Psychiatry
- 3 The Twenty Per Cent of School Children Below the Average
- 4 Some of the Birds of Ontario (Illustrated)

## W A CLEMENS, M A, Ph D

- 1 The Life of our Inland Waters (Illustrated)
- 2 The Biology of Lake Nipigon (Illustrated)
- 3 Our Inland Fisheries and their Conservation (Illustrated)

## A P COLEMAN, M A, Ph D, F R S, LL D

- 1 Geology The Ice Age, Mountain Building, the Tooth of Time, Volcanoes, Ancient Ice Ages
- 2 Geography The Rocky Mountains, Labrador, Gaspé, South America, South Africa, Australia and New Zealand, India and the Far East, Scandinavia and Spitsbergen, Mexico (All illustrated)

## G A CORNISH, B A

- 1 Egypt in the Days of Tutankhamen (Illustrated)
- 2 The Japanese and their Industries (Illustrated)
- 3 Palestine and Mesopotamia (Illustrated)
- 4 Canadian Railways (Illustrated)
- 5 The New Europe (Illustrated)
- 6 Our Greatest Travelleis (A Lecture on Birds) (Illustrated)
- 7 The History of the Great Lakes
- 8 Niagara Falls
- 9 The Romance of the Cotton Plant (Illustrated)
- 10 The World's Food Supply, or Agriculture of the Future
- 11 Turkey and Armenia (Illustrated)
- 12 Canada's Second Story (A Lecture on Northern Canada) (Illustrated)

NOTE—Coloured lantern slides and, in some cases, moving-picture films are used to illustrate these lectures

## E A DALE, M A

- 1 Algernon Charles Swinburne
- 2 The Roman Plays of Shakespeare and Jonson Compared
- 3 Ballad Poetry
- 4 Some English Mystical Poets
- 5 Greek Tragedy and the Greek Theatre
- 6 The Genius of Sir Walter Scott
- 7 Theories of the Primitive Life and Development of Man in Greek and Latin Literature
- 8 The Value of the Greek and Latin Classics to the Modern World
- 9 The Vanishing Art of Reading Aloud—What to Read and How to Read It
- 10 The Roman World in the Early Days of Christianity

## SAINT-ELME DE CHAMP, B ès L, Lyons, O I P

- 1 Maria Chapdelaine
- 2 Erckmann-Chatrian
- 3 Pasteur
- 4 The Religious Question in France
- 5 The French in Quebec
- 6 For a Better Understanding of France

## R D DEFRIES, M D, D P H

- 1 Health Education in Relation to Local Public Health Organization and Administration
- 2 The Value of the Practice of Preventive Medicine to the Layman



- 3 Method of Preparation of Vaccines, Antitoxins and Serum and their use in the Control of Communicable Disease (Illustrated)

O W ELLIS, M Sc

- 1 Brass in the Light of Modern Research (Illustrated)
- 2 Cast Iron in the Light of Modern Research (Illustrated) (Short Course of Four Lectures)
- 3 Defects in Metals and Alloys (Illustrated)
- 4 The Early History of Iron and Steel (Illustrated)
- 5 The Heat Treatment of Steel (Illustrated) (Short Course of Four Lectures)
- 6 The Microscopic Study of Metals and Alloys (Illustrated)

NOTE—Of these lectures Nos 2 and 5 are of a rather technical nature

J H FAULL, B A, Ph D

- 1 Mushrooms Edible and Poisonous

J G FITZGERALD, M D

Single Lectures

- 1 Public Health Education, its Bearing on Community Welfare
- 2 The Preparation of Antitoxins used in Preventing and Treating Communicable Diseases (Illustrated)
- 3 The Value of the Public Health Laboratory to the Community

Courses of Lectures

- 1 Etiology, Methods of Spread and Means of Control of some of the Important Communicable Diseases (Six Lectures)
- 2 Official and Voluntary Health Promoting Agencies (Three Lectures)
- 3 How Man Protects Himself against Harmful Bacteria (Two Lectures)

D T FRASER, B A, M B, D P H

- 1 Health Education in Relation to Local Public Health Organization and Administration
- 2 The Value of the Practice of Preventive Medicine to the Layman
- 3 Method of Preparation of Vaccines, Antitoxins and Serums and their use in the Control of Communicable Diseases (Illustrated)

## L GILCHRIST, M A, Ph D

- 1 X-Rays and Radioactive-Radiations, and their Applications
- 2 Light Waves and their Uses
- 3 The Production of Colour in Insects and Birds

## P GILLESPIE, B A Sc, C E, M Sc

- 1 Canadian Engineering Achievements of the Past Fifty Years (Illustrated)
- 2 Sandford Fleming, Engineer (Illustrated)

## E GOGGIO, A B, M A, Ph D

- 1 Dante
- 2 The Great Ports of Modern Italy
- 3 Modern Italian Novelists
- 4 Women Writers of Present-Day Italy
- 5 Literary Relations between Italy and America
- 6 Longfellow and Italy

## V E HENDERSON, M A, M B

- 1 A Brief History of Architectural Development in Europe (Illustrated)
- 2 A Comparison of French and English Architecture during the period from 1000-1500 A D
- 3 A Comparison of the Nervous Systems and Accompanying Habits of some of the Lower Animals

## L E HORNING, B A, Ph D

- 1 Salient Features of Canadian History
- 2 Canadian Literature
- 3 The Everlasting Balkans
- 4 Teuton and Slav an age-long problem
- 5 The Vertical Problem of Europe
- 6 France and Germany 1100 years and the Rhine
- 7 The Trend of History to the year 2000
- 8 From Serfdom to Democracy

## C D HOWE, M S, Ph D

- 1 The Making of a Tree (Illustrated)
- 2 The Making of a Forest (Illustrated)
- 3 Nature's Forest and Man's Forest ((Illustrated)
- 4 Forest Conditions in Canada (Illustrated)
- 5 The Work of the Various Forestry Organizations in the Dominion (Illustrated)

## G W HOWLAND, B A, M B, M R C P, London

- 1 Human Conservatories The Study of Mental Development in our own Homes

J G HUME, B A, A M, Ph D

- 1 Some Educational Problems in Ontario
  - (a) Problems of the Public Schools (Urban and Rural)
  - (b) Problems of the High Schools and Technical Schools
  - (c) Problems of the University
- 2 Problems of the Pupil
  - (a) The Choice of a Life Work
  - (b) How to Think
  - (c) The Training of the Memory
  - (d) The Training of the Imagination
  - (e) Life's Problems and Life's Ideals (Individual and Social)

MAURICE HUTTON, M A, LL D

- 1 The Roman, Greek, Englishman and Frenchman (2 lectures or 1)
- 2 The Mind of Herodotus (2 lectures or 1)
- 3 Greece in the Great War
- 4 Some Oxford Types
- 5 The Art of Lewis Carroll (the author of "Alice in Wonderland")
- 6 The British and German Mind
- 7 Gilbert and Sullivan's Operas
- 8 Kipling (2 lectures or 1)
- 9 A Traveller's Notes in Greece
- 10 In Paris
- 11 The Greek Point of View
- 12 Hellenism
- 13 Gladstone and Disraeli
- 14 The Conspiracies of Literature
- 15 The Fragments that Remain
- 16 By-Products of Democracy

F C A JEANNERET, B A

- 1 Brioux and the Modern French Drama

G M JONES, B A

- 1 The Imperial Conference
- 2 The Growth of Democracy in Great Britain
- 3 The Romance of Canadian History (Illustrated)
- 4 Tennyson's "In Memoriam"

D R KEYS, M A

- 1 American Humour—Its Genesis and Exodus
- 2 King Alfred the Great
- 3 Chaucer and his Times (Illustrated)

- 4 The English Novel as a Guide to Conduct
- 5 Folk Lore
- 6 The Modern Novel
- 7 Toronto—Past, Present and Future
- 8 World Problems of Our Day

## R S KNOX, M A

- 1 Scottish Poetry
- 2 The English Drama of To-day
- 3 John Masefield
- 4 The Plays of John Galsworthy
- 5 Scottish Humour
- 6 The Development of the English Theatre
- 7 Shakespeare's England
- 8 Some Poets of To-day

## MISS A L LAIRD, M S

- 1 Malnutrition in Children (Illustrated)
- 2 Vitamins (Illustrated)
- 3 Vegetables and Fruits—a Road to Health (Illustrated)
- 4 The Dietitian in the Home (Illustrated)
- 5 Food—a Factor in National Development (Illustrated)

## A T LAING, B A Sc

- 1 Roads, Ancient and Modern (Illustrated)
- 2 Canadian Motor Trails (Illustrated)

## W B LANE, M A, Ph D

- 1 Pragmatism and Idealism (One lecture, or a series)
- 2 Ethical Features of the Modern Flux Philosophy (Bergson) (One lecture, or a series)
- 3 Ethics of Kant (or J S Mill or Green) (One lecture, or a series)
- 4 Nietzsche's Immoralism (One lecture)

## R M MACIVER, B A, M A, D Phil

- 1 Current Economic Questions

## H S MCKELLAR, B A

- 1 Dr Drummond, the Habitant Poet—a biographical sketch, his appreciation of the French-Canadian, with the reading of some of his best poems
- 2 A Glimpse of Paris—75 lantern slides, with a brief historical and literary background
- 3 Robert Burns
- 4 French Wit and Scotch Humour—A short study in national characteristics

## J F McLAUGHLIN, B A, D D

- 1 History and Monuments of Ancient Egypt (Illustrated)
  - 2 History and Monuments of Ancient Mesopotamia (Illustrated)
  - 3 Mohammed and his Koran
  - 4 Poetry and Religion of the Arabs
  - 5 The Hebrew Prophets
  - 6 The Hebrew Poets
  - 7 Modern Movements and Changes in Palestine (Illustrated)
- (Nos 5 and 6 can be given in short courses of five or six lectures)

## H McTAGGART, M A

- 1 The Study of Crystal Structures by means of X-rays
- 2 Colour Photography (Illustrated)

## E S MOORE, M A, Ph D

- 1 Coal—Its Nature, Origin and Utilization (Illustrated)
- 2 Petroleum and Natural Gas (Illustrated)
- 3 Canada's Mineral Wealth—Past, Present and Future
- 4 Expedition to Hudson Bay, the Home of the Eskimo (Illustrated)
- 5 India (Illustrated)
- 6 Volcanoes, and their Geographical Importance (Illustrated)

## M MORAUD, L es L, Paris, Agrégé de L'Université

- 1 Some Aspects of Parisian Life
- 2 School Life in France
- 3 University Life in France
- 4 The French Press
- 5 The Political Parties in France
- 6 The French Foreign Policy

## G H NEEDLER B A, Ph D

- 1 The German University
- 2 Shakespeare in Germany
- 3 Heinrich Heine
- 4 Richard Wagner from the Literary Side
- 5 Germany before the Great War
- 6 What has happened to Germany
- 7 Series of Lectures on Periods or Authors in German Literature
- 8 Goethe's Relations to Scott, Byron, Carlyle and other English Writers

J H PARKIN, B A Sc, M E

- 1 Aviation in Canada

W A PARKS, Ph D

- 1 The Great Fossil Reptiles of Alberta (Illustrated)
- 2 The Origin and Development of the Mammalia (Illustrated)
- 3 Northern Ontario, Geological Geography (Illustrated)
- 4 The Development of the Science of Geology
- 5 The Surface Geology of Ontario (Illustrated)

G D PORTER, M B

- 1 Health Promotion
- 2 Tuberculosis and Public Health

J C ROBERTSON, M A

- 1 A Visit to Greece (Chiefly Athens, Mycenae, Delphi and Olympia) (One to four lectures, illustrated)
- 2 The Legacy of Greece (One lecture or a course of three lectures)

T R ROBINSON, Ph D

- 1 Thought and Life The nature and scope of Philosophy, its relation to religion, science, literature and daily life
  - 2 Philosophies of Life Views of the nature of the universe and man, in their relation to the problems of life and conduct, illustrated by ancient and modern examples
  - 3 Present-Day Problems in Social Ethics Modern economic, political and social conditions in their ethical aspects
  - 4 The Function of the State in Regard to Morality What government has to do with making people good
  - 5 Charles Dickens and his Social Philosophy
  - 6 The Philosophy of Emerson
  - 7 Tennyson's Doctrine of Immortality in "In Memoriam"
- (Short Courses may be given on the subjects of (1) to (4) )

P SANDIFORD, M Sc, Ph D

- 1 The Measurement of Intelligence (1 to 6 lectures with demonstrations)
- 2 The Psychology of Childhood (1 to 6 lectures)
- 3 The Original Nature of Man (1 to 6 lectures)
- 4 The Psychology of School Subjects (1 to 6 lectures)

C B SISSONS, B A

- 1 Co-operation in Theory and Practice
- 2 Peculiar Peoples in the Canadian West
- 3 The Empire in Ancient and Modern Times
- 4 Socrates, Teacher and Citizen

## H B SIFTON, M A

- 1 Poisonous Plants (Illustrated—one or a series of lectures)
- 2 Poisonous Seeds in Feeds (Illustrated—one lecture)
- 3 Weeds (Coloured illustrations—one lecture)

## G O SMITH, M A

- 1 The Roman Occupation of Britain (One lecture—illustrated)
- 2 The Roman Occupation of Britain (A Course of three lectures, two of them illustrated)
- 3 Memoirs and Letters of an English Family in the 17th Century

## R. B THOMSON, B A

- 1 Rambles among Canadian Wild Flowers (Coloured lantern slides)
- 2 Medical Folk-lore of Plants (Illustrated)
- 3 The Royal Botanic Gardens—Kew (Illustrated)
- 4 A Trip to the Rockies and Some Plants by the Way (Illustrated)

## W S WALLACE, B A, M A

- 1 The Growth of Canadian National Feeling (One lecture or a course of lectures)
- 2 The First White Men in America (One lecture)

## J S WELLS, B A, Ph D

- 1 Mediaeval Saints and Modern Sinners (A lecture on religion in France)
- 2 France of To-day and Yesterday
- 3 Renaissance and Reform (One or more lectures)
- 4 French Painters (Illustrated)
- 5 Illustrious French Women (One or more lectures)
- 6 Intellectual Liberty
- 7 French Thought in the Nineteenth Century
- 8 Canada's Debt to France

## C R YOUNG, B A Sc, C E

- 1 Achievements of Engineering (Illustrated)
- 2 Early Engineers and Their Work (Illustrated)
- 3 Contributions of the Engineer to Civilization
- 4 Evolution of Transportation (Illustrated)
- 5 Triumphs of Bridge Building (Illustrated)
- 6 Brindley and Smeaton (Illustrated)
- 7 Sir John Fowler and Sir Benjamin Baker (Illustrated)
- 8 The Aesthetics of Bridges (Illustrated)
- 9 Getting Things Done (A discussion of the fundamental principles of management)

DEPT OF ARCHITECTURE —Lecturers Professors C H C Wright, C  
W Jefferys, A W McConnell, H H Madill

- 1 An Outline of the History of Architecture
- 2 The University Buildings
- 3 Modern Architecture
- 4 Modern Domestic Architecture
- 5 The Cathedrals of England and France
- 6 The Architecture of the French Renaissance
- 7 The Architecture of the Renaissance
- 8 The Decoration of Public Buildings
- 9 The Mural Painters
- 10 The Human Element in Pictures
- 11 The Making of a Picture
- 12 Portrait Painters of Yesterday and To-day

(All illustrated)

In co-operation with the Social Hygiene Council lectures on various aspects of social hygiene will be arranged when requested Dr Gordon Bates and other members of the Council will be available as lecturers

A few sets of lantern slides illustrative of stars, planets, constellations, etc., are available for loan to responsible organizations. An explanatory bulletin accompanies these so that anyone with a fair knowledge of astronomy can give, with the aid of the slides, an interesting lecture on the subject. The organization borrowing these slides pays express charges both ways and is responsible for breakages, there is no other cost. Star maps are sold at one cent each.



## CATALOGUE OF SPECIAL EVENTS, 1923-1924

1923

- Oct 3—Address by Lord Birkenhead in Massey Hall under the auspices of the Students' Administrative Council
- Oct 7—University Sermon by Principal W B Selbie, Mansfield College, Oxford
- Oct 14—University Sermon by Sir Robert Falconer
- Oct 15—University of Oxford Debating Team vs University of Toronto
- Oct 21—University Sermon by Canon F G Scott, Quebec
- Oct 22-27—"The Man from Blankleys," by F Anstey, at Hart House Theatre
- Oct 28—University Sermon by Dr Sherwood Eddy, New York
- Nov 4—University Sermon by Dr Charles E Jefferson, New York
- Nov 18—University Sermon by Prof Hugh Black, DD, Union Theological Seminary, New York
- Nov 19-24—"The Toils of Yoshitomo," by Torahiko Kori, at Hart House Theatre
- Nov 25—University Sermon by Dr W T Grenfell, Labrador
- Nov 26—Special Convocation for the purpose of conferring the honorary degree of Doctor of Science upon Professor F G Banting, MC, MD, LL D, and Professor J J R Macleod, MB, Ch B, DPH, FRS
- Nov 26—Banquet arranged by the Governors of the University in honour of Professor F G Banting, MC, MD, LL D, and Professor J J R Macleod, MD, DPH, FRS, in recognition of the award to them of the Nobel Prize
- Dec 2—University Sermon by Dr Paul Harrison, Arabia
- Dec 5—Evening by Miss Ruth Draper arranged by the Syndics of Hart House Theatre
- Dec 6—Address by Professor J E K Aggrey on "The Challenge of Africa"
- Dec 9—University Sermon by Rev C W Gilkey, Chicago
- Dec 16—University Sermon by Professor Theodore Soares, Chicago
- Dec 17-22—"Castles in the Air," by Bertram Forsyth, at Hart House Theatre

1924

- Jan 6—University Sermon by Canon E S Woods, MA, Cambridge, England
- Jan 13—University Sermon by Canon A P Shatford, Montreal

- Jan 20—University Sermon by Professor Rufus M Jones, Haverford College
- Jan 21-26—"L'Enfant Prodigue," by Andre Wornser, at Hart House Theatre
- Jan 27—University Sermon by Rev John MacNeill, Toronto
- Feb 3—University Sermon by Dean W L Sperry, Harvard University
- Feb 4-8—Series of Lectures in English by Professor Albert Feuillerat, University of Rennes, France, exchange Professor at Harvard University
- Feb 5—Address by Mr Edward T Devine, arranged by the Department of Social Service
- Feb 8—Official Opening of the new Aerodynamics Laboratory
- Feb 10—University Sermon by Dr Shailer Matthews, University of Chicago
- Feb 11-15—Series of Lectures in French by Professor Albert Feuillerat
- Feb 12—Course of Lectures by Henry Norris Russell, Ph D, Professor of Astronomy in Princeton University
- Feb 17—University Sermon by G A Studdert Kennedy, M C, Rector of St Edmunds, London, England
- Feb 18—Address by G A Studdert Kennedy, M C
- Feb 21—Lecture by Dr Ludwig Silberstein, Rochester, N Y, arranged by the Department of Physics
- Feb 22—Lecture by Dr Ludwig Silberstein
- Feb 24—University Sermon by Rev J R P Sclater, Toronto
- Feb 25-Mar 1—"The Hostage," by Paul Claudel (translated, Pierre Chavannes), at Hart House Theatre
- Mar 2—University Sermon by Rt Rev Bishop C H Brent, Buffalo, N Y
- Mar. 4—Bates College Debating Team vs University of Toronto
- Mar 9—University Sermon by Chancellor H P Whidden, McMaster University, Toronto
- Mar 16—University Sermon by Professor E I Bosworth, Oberlin College, Ohio
- Mar 23—University Sermon by Bishop F J McConnell, Pittsburgh, Pa
- Mar 24-29—"The Marriage of Figaro," by Mozart, at Hart House Theatre
- Mar 30—University Sermon by Rev J T Wardle Stafford, Toronto
- Apr 6—University Sermon by Rev S A B Mercer, Trinity College, Toronto

- Apr 21-26—"The Weddings of a Hunchback," by H Borsook, and  
"The Weather-Breeder," by Merrill Demson, at Hart House  
Theatre
- Apr 26—Complimentary Dinner to the President, Sir Robert Falconer,  
by members of the Staff of the University
- May 19-24—"The Monkey's Paw," by W W Jacobs and "Great Cath-  
erine," by Bernard Shaw, at Hart House Theatre
- June 5—Dedication Ceremony of the Soldiers' Tower, the War Mem-  
orial of the University
- June 6—Convocation at which honorary degrees were conferred as  
follows —

*Doctor of Laws (Honoris Causa)*

Sir James Albert Manning Aikins, M A, LL D  
Rt Rev Charles Henry Brent, M A, DD, STD, LL D  
Albert Edward Gooderham, Esq  
William Tytler, Esq, B A

*Doctor of Science (Honoris Causa)*

Henry Girdlestone Acres, Esq, M E  
Frederick Arthur Gaby, Esq, B A Sc

*Doctor of Medicine (Honoris Causa)*

Oliver R Avison, Esq, M D

UNIVERSITY OF TORONTO ASSOCIATIONS  
AND SOCIETIES

1923-1924

THE ALUMNI FEDERATION OF THE UNIVERSITY OF  
TORONTO

In the majority of the Faculties and Colleges of the University there are associations of alumni. These are united in the Alumni Federation of the University of Toronto. The Federation has numerous branches throughout Canada and the United States, and publishes a monthly periodical known as *The University of Toronto Monthly*.

A Bureau of Appointments is conducted for the purpose of assisting graduates and undergraduates in securing employment during the term, for the summer, and permanently.

More than \$164,000.00 has been loaned to 540 returned soldier students towards their University expenses from the War Memorial Fund, which was largely subscribed by graduates.

In co-operation with the Board of Governors the Alumni Federation has set up the Banting Research Foundation, which aims to make adequate funds available for the assistance of medical research at the University and elsewhere.

For three years a series of popular lectures by members of the Staff has been arranged, in the interests of University publicity.

*President*—Angus MacMurchy

*Vice-President*—H. D. Scully

*Board of Directors*—Sir Robert Falconer, Angus MacMurchy, H. B. Anderson, E. P. Brown, W. A. Bucke, I. H. Cameron, John J. Gibson, Thos. Gibson, C. E. Locke, J. V. McKenzie, F. P. Megan, H. D. Scully, Dr. W. E. Gallie, R. J. Marshall, G. F. McFarland, Miss Katherine Begg, Miss Lexa Denne, Dr. Minerva Reid, R. N. Burns.

## HART HOUSE

*Warden*—J. B. Bickersteth

*Comptroller*—J. R. Gilley

*Director of Theatre*—Bertram Forsyth

*Finance Committee*—J. B. Bickersteth, M. A. Mackenzie, Vincent Massey, V. E. Henderson, C. R. Young, G. A. Cornish, J. R. Gilley

*Board of Stewards*—Sir Robert Falconer, J B Bickersteth (chairman, ex-officio), T A Reed, Vincent Massey, Dr V E Henderson, C N Cochrane, P W Beatty, R B Ferris, D M Meekison, J McCulley, G A Cornish, D L MacLean, C S Sneyd, H R McAlister, H L Martin, W T A Bell

*House Committee*—J B Bickersteth (chairman, ex-officio), Dr D E Robertson, Dr A D A Mason, R B Ferris, D M Meekison, G N Kennedy, D L MacLean, J L Dill, J M Dymond, J Horal, E T Guest, F W Beare, W A Osbourne, F J Wallis, M M Kelso, R C Riley

*Hall Committee*—J B Bickersteth (chairman, ex-officio), C R Young, H A Tuttle, G A Chne, H J C Ireton, C S Sneyd, W H McLean, M G de Souza, K S Waldron, R T Black, C R Davis, E R Westman, H S Clark, C A G Law, C R Ferguson

## FACULTY UNION

Organized 1901

### OFFICERS

*President*—Sir Robert Falconer, K C M G

*Secretary*—G A Cornish

*House Committee*—V W Bladen, G A Chne, C B Sissons, Leo Smith, R B Thomson, H A Tuttle

## STUDENTS ADMINISTRATIVE COUNCIL

The Students Administrative Council has developed from the Parliament of Undergraduates which was organized in 1905 with a large membership to afford students of all the Colleges and Faculties the privilege of discussing in open debate questions of interest to them. During the last few years the membership of the Parliament has been reduced as the work became more executive. The Council, as now recognized by the University authorities, has the following duties —

To represent the students on all public occasions and in all matters pertaining to their interests

To afford a recognized means of communication between the students and the University or Civic authorities

To promote inter-university relationships and to cultivate a University "esprit de corps" among the students of all Colleges and Faculties

An important step in the growing power of the Council was accomplished during the Session 1914-15, when the Caput of the University delegated to the Council full authority to deal with all matters concerning student discipline within the University

Another innovation is the Students' Council fee, collected by the Bursar, for the use of the Council. This makes possible the employment of a salaried permanent secretary and provides a working capital by means of which a greater efficiency in the management of the various organizations can be attained.

The Council is responsible for Theatre Night, the Glee Club, the University Musical Society, and Inter-University Debating, and jointly responsible with the Women Students Administrative Council for the publication of *THE VARSITY*, *TORONTONENSIS*, and the *STUDENTS' DIRECTORY*.

### *Executive*

<i>President</i> , James Endicott, B A	<i>Convenor, Musical Organizations Committee</i> , W A Haughton
<i>Vice-President</i> , W A Osbourne	
<i>General Secretary-Treasurer</i> , F C Hastings, B A	<i>Representative to Torontonensis Board</i> , A Gilhes
<i>Convenor, Students' Court</i> , B I Johnstone	<i>Representative to Board of Hart House Stewards</i> , J McCulley
<i>Convenor, Literary Organizations Committee</i> , N J Endicott	<i>Representative to Athletic Association</i> , R S S Chaffe

### *Council*

<i>Medicine</i> , G N Black, D L McLean, L H A R Huggard, E N Wright, A E Young, J H Ross	<i>St Michael's College</i> , J E McGahey
<i>University College</i> , A M Lund, W W Goforth, I E Francis, W B Crow	<i>Wycliffe College</i> , R H Perry
<i>Royal College of Dental Surgeons</i> , F C Simms, A J Barkley, W G Thomas, R G Hemmerick, H P Bishop	<i>Forestry</i> , W B Greenwood
<i>School of Applied Science</i> , W I W Reid, H C Smith, T B Smith	<i>Ontario College of Education</i> , C C Ashcroft
<i>Victoria College</i> , A W Scott, T G Mason	<i>Pharmacy</i> , B O McLeod
	<i>Students' Christian Association Representative</i> , W S MacKay
	<i>Athletic Association Representative</i> , R H Ferguson
	<i>Varsity Representative</i> , A K. Kembar

## WOMEN STUDENTS' ADMINISTRATIVE COUNCIL

<i>President</i> , Miss E Grout, St Hilda's College	<i>Varsity Representative</i> , Miss F Smith, Medicine
<i>Vice-President</i> , Miss E Burke, St Michael's College	<i>Torontonensis Representative</i> , Miss M Thomas, University College
<i>General Secretary-Treasurer</i> , Miss A E Marie Parkes, BA	<i>Victoria Representative</i> , Miss M Moody, Victoria College

## WOMEN'S ATHLETIC ASSOCIATION

<i>President</i> , Dr C C Benson	<i>Directorate Members</i> , Mrs W A Kirkwood, Dr Edith Gordon,
<i>Vice-President</i> , Miss Adelaide H G Macdonald	Miss I G Coventry, Miss F Burwash, Miss M L Asman,
<i>Financial Secretary</i> , Miss A E Marie Parkes	Miss M M Fenwick, Miss F H Fraser, Miss A M Hilliard, Miss M S Ramsbottom

## THE VARSITY

<i>Editor-in-Chief</i> , A K Kembar	<i>Assistant</i> , D M Halliday
<i>Women's Editor</i> , Miss D Mat- thew	<i>Sporting Editors</i> , T J Wheeler, Miss F Evans
<i>Managing Editors</i> , I L Kenen, Miss J Knveton	<i>Assistant</i> , H J Weiss
<i>Assistant</i> , G Maybee	<i>Exchange Editor</i> , E R Angus
<i>News Editors</i> , B J O'Boyle, Miss M McGeachey	<i>Music Editor</i> , N P H Brown
	<i>Dramatic Editor</i> , W S Milne
	<i>Librarian</i> , E W Rush
	<i>Business Manager</i> , F C Hastings, BA

## WOMEN'S PRESS ASSOCIATION

<i>President</i> , Miss J L Gogo	<i>Alumnae Councillor</i> , Miss M Mallon
<i>Vice-President</i> , Miss D Matthew	
<i>Secretary-Treasurer</i> , Miss M Smith	<i>Active Councillor</i> , Miss E Mus- tard

## TORONTONENSIS BOARD

<i>Editor-in-Chief</i> , R B Cowan	<i>Royal College of Dental Surgeons</i> ,
<i>Business Manager</i> , F C Hastings, BA	C Strachan, W MacLean, J Miller
<i>Medicine</i> , Sanford English, Stanley Campbell, Miss L A Dalrymple	<i>Wychffe</i> , C G Eakins
<i>Victoria College</i> , D B McColl, Miss G H McKay	<i>Forestry</i> , Nigel M Kensit
<i>University College</i> , G Mallon, Miss Worthington	<i>St Michael's College</i> , L F Barnett, Miss McCormack
<i>School of Applied Science</i> , W R Cowan	<i>Loretto College</i> , Miss E Irvine
	<i>Trinity College</i> , H Beaumont
	<i>St Hilda's</i> , Miss Hazelwood

## STUDENT CHRISTIAN ASSOCIATION

The object of the Association is to lead the men in the University of Toronto to acknowledge Jesus Christ as Lord and Master, and to have them decide on a life's work in His name, to promote Christian character, to develop and train men for aggressive Christian work and service, and generally to promote the physical, mental and spiritual welfare of the student body

*Advisory Committee*

<i>Hon Chairman</i> , Sir Robert Falconer, LL D, D Litt	S H Hooke, MA
	C P Milne, Esq
<i>Chairman</i> , F Tracy, Ph D	W S McKay
	W M Graham
<i>Treasurer</i> , C L Burton, Esq	<i>Secretary</i> , R B Ferris, BA

*Executive of Federal Cabinet*

<i>President</i> , W S McKay, UC	<i>Assistant Treasurer</i> , W M Graham, Vic
<i>Vice-President</i> , H S Clark, SPS	<i>Boys' Work and Social Service</i> , W S Stanbury, UC
<i>Recording Secretary</i> , J L Little, Med	<i>General Secretary</i> , R B Ferris, BA

*Representatives of Local Units*

<i>University College</i> , J E Pritchard	<i>Victoria College</i> , C D Dingman
<i>Medical College</i> , T W A Gray	<i>Trinity College</i> , G F Luxton
<i>Applied Science</i> , J Beattie	<i>Wychffe College</i> , J McCulley
<i>Dental College</i> , Geo F Edwards	<i>Knorr College</i> , C W Krug, BA
	<i>Missionary</i> , I McEown, BA



# WOMEN'S COUNCIL OF THE STUDENT CHRISTIAN ASSOCIATION

<i>President</i> , Miss A N Wilson, St Hilda's College	<i>Secretary</i> , Miss M C W Buffam, University College
<i>Vice-President</i> , Miss A M Hildhard, Victoria College	<i>Treasurer</i> , Miss M A Nicholson, Medicine

## CANADIAN OFFICERS' TRAINING CORPS

### UNIVERSITY OF TORONTO

<i>Officer Commanding</i> , Colonel W R Lang, late General Staff, CEF	Lt M R Blackburn (Elgin Rgt)
<i>Second in Command</i> , Major T R Loudon, late Can Eng, CEF	"B" Co (Medicine), Major W G Cosbie, M C, (CAMC), Capt J A Linton, M C (CAMC), Lieut H D Delamere, Lieut H B Lang, M C
<i>Adjutant</i> , Major H H Madill, late Inst, Cadre, CEF	"C" Co (App Sc), Major J R Cockburn, M C, Capt W J T Wright, M B E, Lieuts. J D Walks, H W McManus, F J Milne
<i>Medical Officer</i> , Major J W Barton, M D, R of O, CE	<i>Attached from Can Air Force</i> , Lieut H J Balmer
<i>Paymaster</i> , Capt T A Reed	<i>Attached for Instruction</i> , Lieuts G A Murray (Res of O), C F Haultain (Durham Regt), Prov Lieut F E Neylan (Simcoe Foresters)
<i>Contingent Sergeant-Major</i> , S-M W Hunt, late Royal Welch Fusiliers	
<i>Company Officers</i> , "A" Co (Arts), Lieuts K B Conn, DFC (Comdg), A Holmes, R B Messervey, N W Taylor, J Thomson (Bruce Regt), Prov-	

## THE UNIVERSITY OF TORONTO ATHLETIC ASSOCIATION

The Athletic Association is now the paramount body in University athletics, and has entire jurisdiction over the athletic clubs using the University name, and over their finances, members and policy, subject to the University authorities. Henceforth no financial agreement can be entered into by any such club without the sanction of the Directorate. No expenditure of any kind in connection with any such club can be made without the written order of the Secretary-Treasurer of the Directorate.

The offices of the Association are in Hart House where all information can be obtained regarding the various branches of sport. A student who wishes to participate in any line of athletics must register at the office of the Secretary before playing with any club, and undergo a medical examination.

## ATHLETIC DIRECTORATE

*Honorary President, SIR R A FALCONEP, D LITT, LL D, CM G**Faculty Members Appointed by the President*

PROFESSOR M A MACKENZIE, M A, President

PROFESSOR C H C WRIGHT, B A Sc

*Representative of the Advisory Board*

DR W A DAFOE

*Student Members elected by the Undergraduates*

R H FERGUSON

J HYDE

R H KEEFLER

R T WEAVER

D M MEEKISON

*Representative of Students' Administrative Council*

R S S CHART

*Medical Director*

DR G D PORTER

*Secretary-Treasurer*

T A REED

*Gymnasium Director*

D M BARTON

*Hart House Steward appointed by the Athletic Directorate*

D M MEEKISON

*Representatives on the Rules Committee of the Intercollegiate Rugby Union*

HUGH GAIL

W C FOULDS

## RUGBY CLUB EXECUTIVE

*President*

R T WEAVER (Med V)

*Vice-President*

J C PATERSON (Med V)

*Secretary*

R H FERGUSON (Dent V)

*Asst Secretary*

S H ROBINSON (U C III)

*Captain*

G E WYSTMAN (Dent V)

*Manager*

H ZIMMERMAN (Ap Sc III)

## SOCCER CLUB EXECUTIVE

*Hon President*

J B BICKERSTETH, M A

*Hon Vice-President*

PROF C B SISSONS

*President*

B I JOHNSTONE (Med V)

*Vice-President*

L O CAMPBELL (Ap Sc IV)

*Secretary*

W B RIRIE (Med III)

*Manager*

J R NEILSON (Med V)

*Captain*

L G C D'EASUM (Med V)

## BRITISH RUGBY CLUB EXECUTIVE

<i>Hon President</i>	THOS GIBSON, B A
<i>Hon Vice-President</i>	DR V E HENDERSON
<i>President</i>	C G KINGSMILL (Ap Sc IV)
<i>Vice-President</i>	H M ROSS (Med IV)
<i>Secretary</i>	N E RUSSELL (Ap Sc IV)
<i>Captain</i>	H M S PENTELOW (Ap Sc IV)

## TRACK CLUB EXECUTIVE

<i>Hon President</i>	K L CARRUTHERS, B A Sc
<i>Hon Vice-President</i>	J B RIDLEY, B A
<i>President</i>	D B WESTCOTT (Med V)
<i>Vice-President</i>	L D CROLL (Med IV)
<i>Secretary</i>	D B PÆLER (Med III)

## HARRIER CLUB EXECUTIVE

<i>President</i>	A M BELL (Med V)
<i>Vice-President</i>	W W GOFORTH (U C IV)
<i>Secretary</i>	W A PAUL (Dent V)

## TENNIS CLUB EXECUTIVE

<i>Hon President</i>	SIR ROBERT FALCONER
<i>Hon Vice-President</i>	F Y McEACHREN
<i>President</i>	A W HAM (Med IV)
<i>Vice-President</i>	J J LYONS (St Michael's IV)
<i>Secretary</i>	C R H WILKINSON (U C IV)

## ROWING CLUB EXECUTIVE

<i>Hon President</i>	PROF C H C WRIGHT
<i>Hon Vice-Presidents</i>	
PROF J ROY COCKBURN	H GOODERHAM, B A
	W E DOUGLAS, B A
<i>President</i>	W BAXTER (Ap Sc IV)
<i>1st Vice-President</i>	R R SIRRS, (Ap Sc IV)
<i>2nd Vice-President</i>	J F MILLICAN (Ap Sc III)
<i>Secretary</i>	COLIN TAIT (Med III)

*Committee*

W ARMSTRONG (Dent IV)
D M STREBIG (Med V)
W H D CLARK (Ap Sc IV)

## SWIMMING CLUB EXECUTIVE

<i>President</i>	R H KEEPLER (Ap Sc IV)
<i>Vice-President</i>	P E WILLIAMS (Vic III)
<i>Secretary</i>	J A HAINES (UC IV)
<i>Captain (Swimming)</i>	J L UREN (Med III)
<i>Captain (Water Polo)</i>	To be elected

## BASKETBALL CLUB EXECUTIVE

<i>Hon. President</i>	DR J KENNER BELL
<i>Hon Vice-President</i>	DR J D GRAHAM
<i>President</i>	A C TAYLOR (Med V)
<i>Vice-President</i>	J A M BELL (Triu IV)
<i>Sec -Treasurer</i>	J S MCINTOSH (Med V)
<i>Captain I Team</i>	D J McLEAN (Ap Sc III)

## HOCKEY CLUB EXECUTIVE

<i>Hon President</i>	DR W J CARSON
<i>Hon Vice-President</i>	R T WEAVER (Med V)
<i>President</i>	D M MERRISON (Med V)
<i>Vice-President</i>	R M LAURIE, (Ap Sc IV)
<i>Secretary</i>	R H FERGUSON (Dent V)

## GYMNASIUM CLUB EXECUTIVE

<i>Hon President</i>	R J WILLIAMSON
<i>Hon Vice-President</i>	G R. WORKMAN
<i>President</i>	A R CHADWICK (Ap Sc IV)
<i>Secretary</i>	E CHOROLSKY (Ap Sc II)
<i>Manager</i>	I W MIX (Vic IV)
<i>Captain</i>	M WOLSEY (Ap Sc IV)

## BOXING, WRESTLING AND FENCING CLUB EXECUTIVE

<i>Hon President</i>	DR W EASSON BROWN
<i>Hon Vice-President</i>	F S SEABORNE, B A Sc
<i>President</i>	L W BLACK (Med IV)
<i>Vice-President</i>	F B COOPER (Dent IV)
<i>Secretary</i>	J A MAHON (St Michael's III)
<i>Manager</i>	C D GOSSAGE (Med V)
<i>Boxing Representative</i>	E SHUTE (Med IV)
<i>Wrestling Representative</i>	F FARNSWORTH (Med IV)
<i>Fencing Representative</i>	E G F BARR, (Ap Sc III)

## CURLING CLUB EXECUTIVE

<i>Hon President</i>	PROF W M TREADGOLD
<i>President</i>	A H MacKAY (Med V)
<i>Vice-President</i>	L G MacDONALD (UC III)
<i>Sec-Treasurer</i>	T M STEELE (Med V)
<i>Publicity Agent</i>	W J HASTIE (UC IV)

## INDOOR BASEBALL CLUB EXECUTIVE

<i>President</i>	R R SIRS (Ap Sc IV)
<i>Vice-President</i>	F F BAKER (Dent IV)
<i>Secretary</i>	F F HUTCHISON (UC III)
<i>Assistant Secretary</i>	O L SIMPSON (Ap Sc IV)

## LACROSSE CLUB EXECUTIVE

<i>Hon President</i>	JOHN L WILSON
<i>Hon Vice-President</i>	L G C D'EASUM
<i>President</i>	GEO S WILLIAMSON (Med V)
<i>Vice-President</i>	H M ROSS (Med IV)
<i>Secretary</i>	J S McINTOSH (Med IV)
<i>Manager</i>	A R McGEE (Med IV)

## GYMNASIA

The Physical Department has now five gymnasia. The main floor, 100 x 50 feet, is fitted up with the latest apparatus for all round class and individual work. The upper gymnasium, 80 x 40 feet, is known as the Games Rooms, where the interfaculty contests in basketball, indoor baseball and volley ball are played. The teams of the various faculties and colleges have practice hours allotted to them on this floor. There are also the three small gymnasia, each 50 x 30 feet, for boxing, wrestling and fencing, respectively. These three rooms are also fitted up with basketball goals and afford extra practice floors in an emergency.

All the male students of the University are examined by the Medical Director and placed in categories according to their physical fitness. Some form of physical training is compulsory for every student of the first and second years. Students in Category A<sup>1</sup>, that is physically fit, can elect the form of exercise in which they wish to engage. Students in Category A<sup>2</sup>, (hardly up to A<sup>1</sup> standard physically), can elect in the same manner, but are limited to certain forms of exercise.

as recommended by the Physical Director. Students in Category B<sup>1</sup> must take the form of exercise recommended by the Physical Director.

Two gymnasium instructors are in attendance from 9 a.m. to 6 p.m. Classes are held at various hours throughout the day. The Swimming Instructor is in attendance at the pool from 9 a.m. to 6 p.m. Swimmers may use the pool at any time. Non-swimmers must attend at the hours set for them. Students may consult the Medical Director on all matters pertaining to their health.

The Gymnasium Fee is now merged in the Hart House Fee, payable to the Bursar, and compulsory for all male students.

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<i>Stage Manager</i> , Alan Coventry	
<i>Assistant Stage Manager</i> , Colin Tart	<i>Master Carpenter</i> { Nelson R. <i>Master of Properties</i> { McConkey

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The "Trinity College Review" is published once a month throughout the academic year. The annual subscription is \$1.50.

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The Society meets every second Wednesday during the academic year (except April), beginning with the second Wednesday in October. Addresses are given by prominent men on subjects of general interest.

The Society is divided into six Clubs for the purpose of affording a medium of study of matters relating in particular to different branches of Engineering. Each of the Clubs holds its meetings at regular intervals. Papers are read and discussions held on engineering subjects.

The Society publishes an annual, called "Transactions," which contains the addresses given at the meetings and an account of the year's activities.

A Supply Department is conducted by the Society on a co-operative plan, through which instruments, draughting supplies, stationery, etc., can be purchased at a low cost.

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The Athletic Association has full control over all athletic clubs using the name of the Faculty of Applied Science. The Executive Committee has power to suspend any one from the privileges of membership in the Association for any breach of its regulations, and controls the finances of all athletic clubs in the aforesaid Faculty. The annual membership fee of this Association is one dollar.

No other moneys are collected for the support of athletics in the Faculty of Applied Science without the sanction of the Executive Committee.

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The Debating Club exists for the purpose of helping students to overcome their natural embarrassment when speaking in public and to that end holds weekly meetings during both terms, at which open debates take place after the manner of the Oxford Union.

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The object of the Chemical Club is to promote the study of industrial chemistry and chemical engineering. Illustrated lectures, preceded by an informal dinner and a short musical programme, are held fortnightly, and on the following day an excursion is made to industrial concerns located in the city or vicinity.

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The Student Christian Movement recently organized in the Faculty takes the place of the Young Men's Christian Association, which has held a place here since 1905. The aims of this Movement are to develop true Christian manhood and to be of assistance to students in many ways. Bible study groups are conducted, conferences arranged and students are given help in finding suitable rooms, etc

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